

In This Issue—*Dealer Success Comes from Sound Methods*

MOTOR AGE

Vol. L
Number 21

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CHICAGO, NOVEMBER 25, 1926

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Three Dollars a Year

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Edward S. Jordan

President
Jordan Motor Car Company, Inc.
Cleveland



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We can offer you a genuine businesslike proposition in regard to discount, as well as advertising and merchandising cooperation. Come to the factory. Or, if you wish, we will send a representative to go into the details with you. Write or wire, attention Stewart McDonald, President.

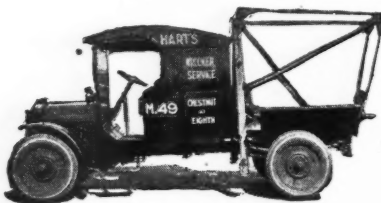


THE MOON MOTOR CAR CO., ST. LOUIS, U. S. A.

MOON

Also Makers of the New DIANA Advanced Straight 8

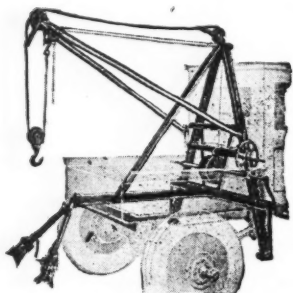
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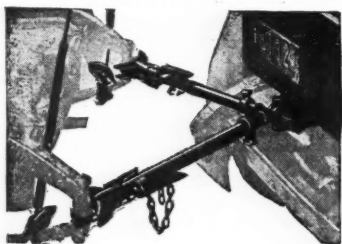
A powerful efficient double boom type wrecker at a moderate cost. It is impressive in appearance, a remarkable advertising medium and a real business producer.

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Order from your jobber.



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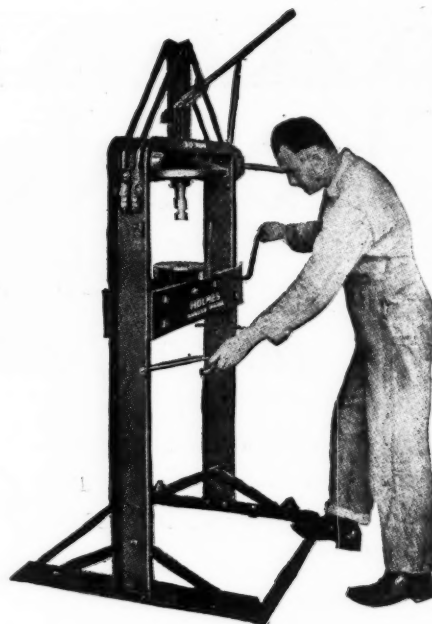


For Towing Wrecked Cars (Suspended). The Improved Holmes "V" Tow Bar is the latest development in towing equipment. It absolutely holds towed car in perfect alignment and gives the driver of service car complete control over towed car. Furnished in two lengths, 36 to 48 inches and 48 to 60 inches.

Prices \$20.00 and \$22.00



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Your Greatest Labor Saver

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The bolster plate is quickly and easily raised or lowered to any desired height by crank and hoisting arrangement instead of the old hand method of adjustment. All levers are conveniently operated with the right hand while operator stands directly in front of press.

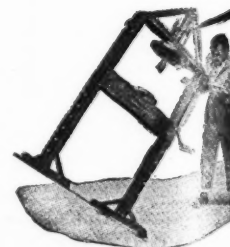
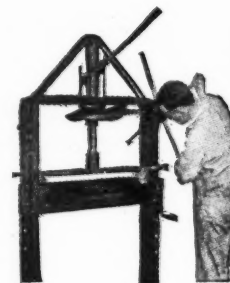
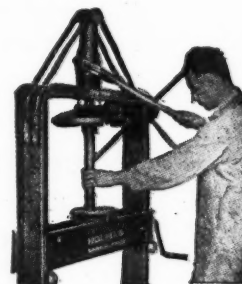
The special bevel gear and spike wheel construction give a continuous movement of screw making it 100% faster in operation than any ratchet type press, all awkward movements and lost motion being eliminated.

Base is fitted with two small rollers that come in contact with floor when press is tilted, permitting it to be easily rolled about the shop.

Price With Standard Equipment \$110

Ask your Jobber for full information or
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ERNEST HOLMES COMPANY
CHATTANOOGA TENNESSEE



MOTOR AGE

Reg. U. S. Pat. Office

VOL. I

No. 21

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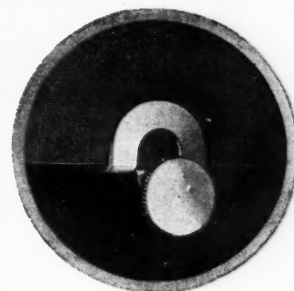


These were designed for all-year use

The Vernay Shutter was constructed definitely for all-year use. When the vanes are open the widest possible radiation surface is exposed.

Other features of the Vernay are stream-line vanes; the rivetless construction; all-brass bearings; no holes to drill for installation and the neat self-locking handle on the dash adjustable to six positions.

Above all, the low retail price, \$5.50 for Fords, others up to \$11.00, makes the Vernay a fast-selling profit maker. There are Vernays for all standard cars and blanks for odd makes.



This is the Vernay Shutter handle which clamps to the dash. No holes to be drilled. A slight turn unlocks the handle—an easy pull closes the shutter.

Made by

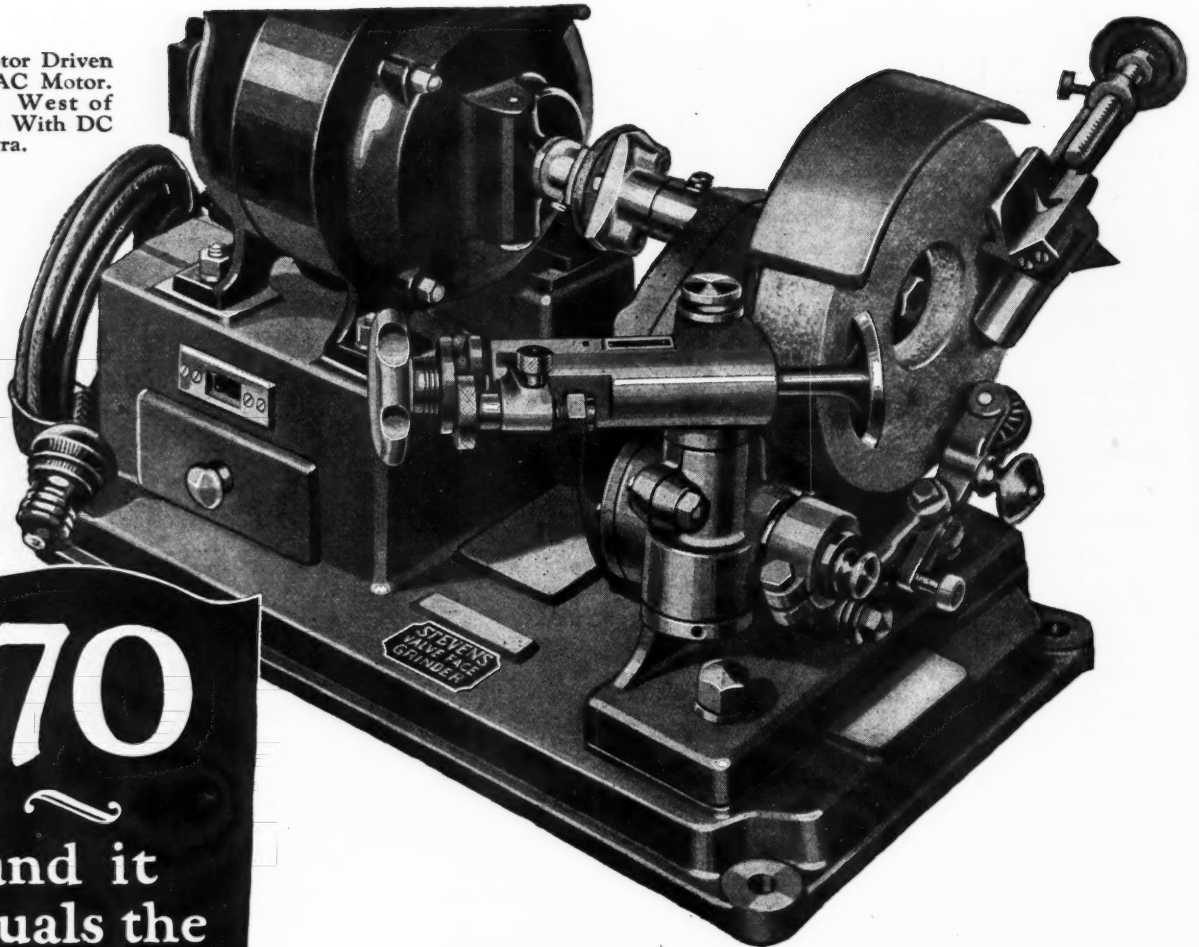
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Manufacturers of Shims of Laminum

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ALL YEAR
ROUND
**VERNAY
SHUTTER**

T-282—Motor Driven Model with AC Motor. Price, \$70. West of Rockies, \$72. With DC Motor, \$5 extra.



\$70

and it equals the work of the high-priced machines/

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A COMPLETE motor-driven model at a price that marks an achievement in high grade machine designing.

Accuracy to 1/1000th of an inch—speed—endurance—ease of operation! Qualities heretofore found only in high priced machines now made possible in a popular priced model, through simplified design.

Anyone can get high precision on valve face work with the "Stevens"—no skill is required.

It's a handy all-around grinder, too. Special attachments for accurately sharpening drills, chisels and shears; and for grinding down valve stems, push rods, tappets and piston pins—all included without extra charge. Order through your "Speed-Up" jobber today.

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Mfrs. of Stevens "Speed-Up" Tools and Walden-Worcester Wrenches
WORCESTER, MASS.

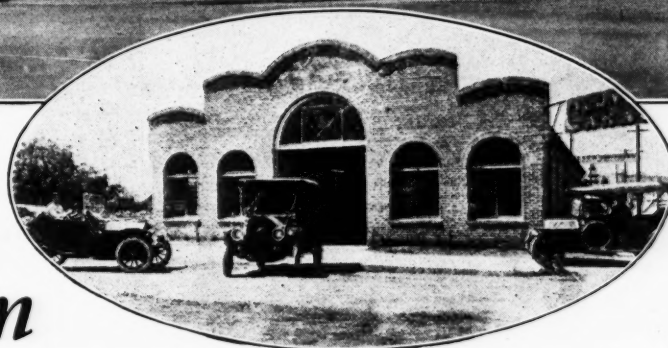
Export Division: 375 Broadway, New York, U. S. A.



STEVENS-WALDEN-WORCESTER



The growth of Harry Glover's business from the small building at right which he occupied in 1908 to the large structure above which he occupies today reflects the money-making possibilities of the Studebaker franchise.



He changed from horses to horseless carriages



HARRY GLOVER

SEVEN hundred miles north of California's winter tourist belt is Redding, a town of 3,500 people in the upper Sacramento valley.

Back in 1908 Harry Glover was Redding's blacksmith. When his customers began to prefer automobiles, he switched from horses to horseless carriages.

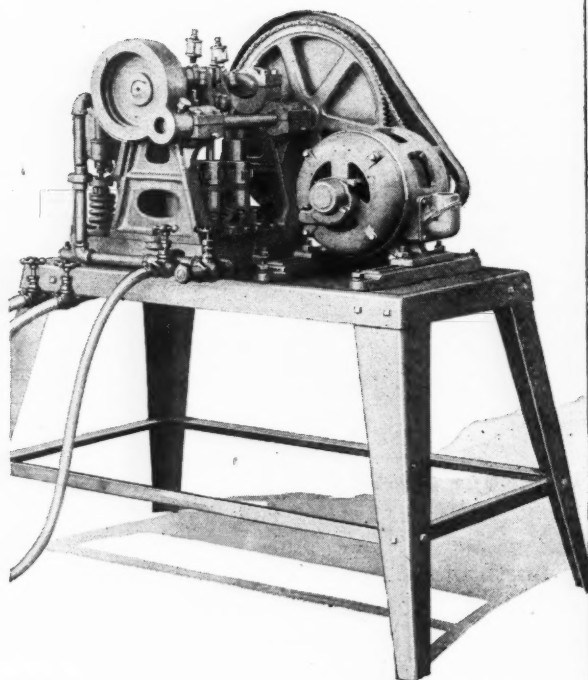
"Then the real struggle began," said Harry Glover, "doing something I knew nothing about. Lots of folks were opposed to automobiles. My first place was a small brick building (pictured above). I was my own nightwatchman, with only three cars to watch. But owners liked the way their Studebakers stood up on our mountain roads and I kept on growing.

"My business took its big jump ahead when I learned of the Studebaker plan for financing stock for dealers. Things began to come easier after my first carload shipments. Soon I was able to buy the building next door. Now my garage is 100 by 300 feet—and clear of debt. My gross sales during 1925 were \$230,906.

"I have always felt, in offering Studebaker cars to Redding motorists, that I am giving them the biggest value on the market."

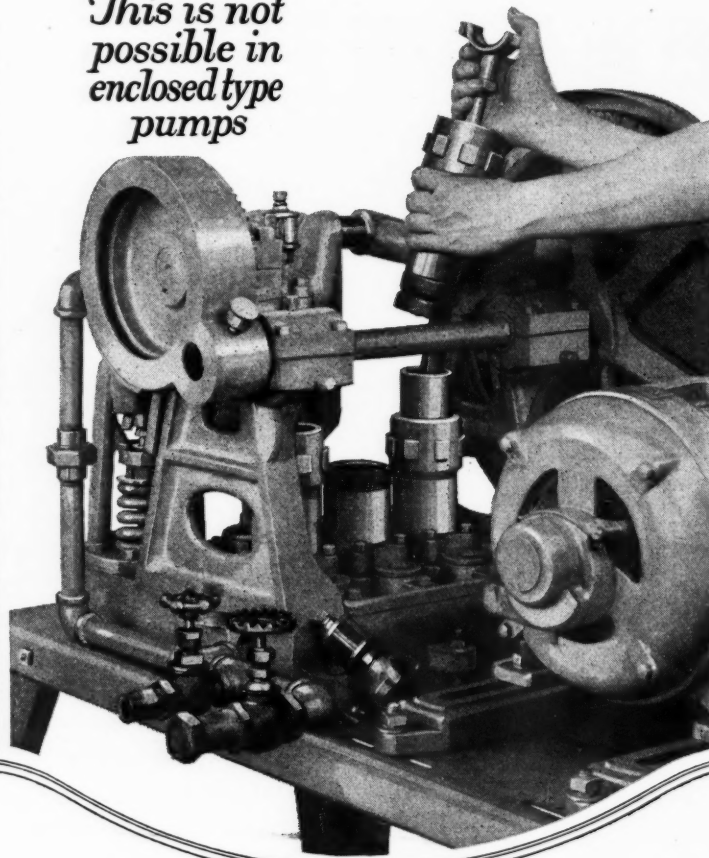
If Studebaker is inadequately represented in your locality, or not at all, write us today regarding the sales rights for your territory. Your inquiry will be held strictly confidential. Address Department 51, The Studebaker Corporation of America, South Bend, Indiana.

STUDEBAKER



Any part of the pump can be quickly and easily removed

This is not possible in enclosed type pumps



There Are No Enclosed Inaccessible Parts In The New Hardie Car Washer

SIMPLE, efficient, open-and-above-board, best describe the new dependable Hardie car washer. It has no complicated parts hidden from the eye. There is no lurking doubt as to what is going on inside—no wondering if the cleaning solution or water are mixing with the lubricant. In the Hardie the operator can see the entire working mechanism with his own eyes. The possibility of costly delays and repairs is eliminated in the new Hardie. And that's why service station and garage owners prefer it.

Dependable Hardie car washers are sturdily and ruggedly built in 4 sizes—one-car to 6-car—to meet your exact needs. It will cost you nothing to write for descriptive catalog and detailed specifications; it may be the means of starting you on the road to real additional profits. Write now, before you forget.

THE HARDIE MFG. COMPANY
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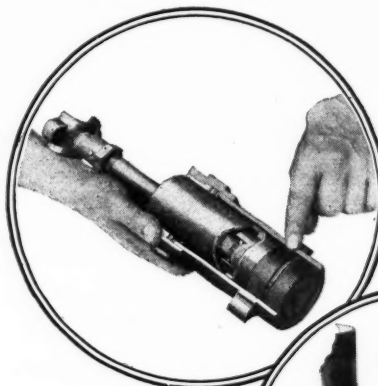
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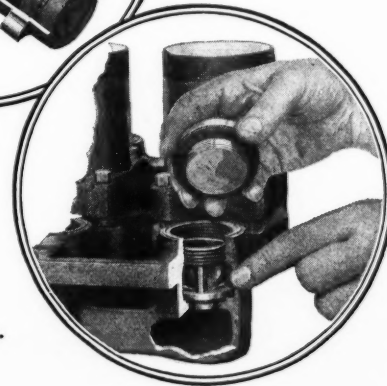
DEPENDABLE HARDIE CAR WASHER

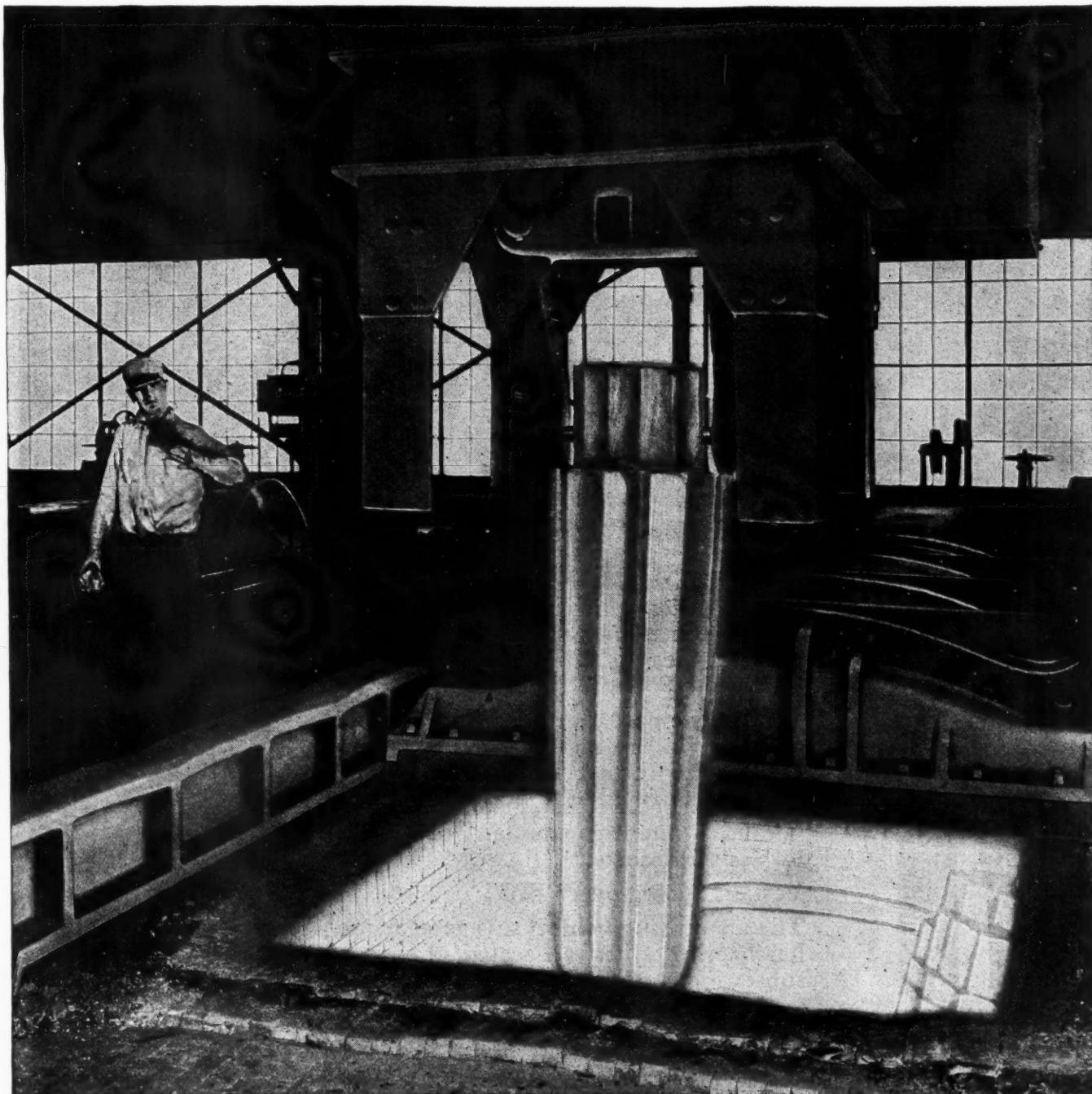
Why The Hardie Is Trouble Free

Self lubrication.
Silent chain drive.
No enclosed parts.
New pistol grip gun.
Improved plungers.
Die-cast removable bearings.
Larger gears.
Adjustable base.



Note the highly simplified design and sturdy construction of the Hardie plunger and valves—another result of 26 years' experience in the manufacture of high pressure pumps.





The giant fingers of a massive overhead crane manipulate 4250-pound ingots of glowing steel above the fiery mouths of the re-heating furnaces in the Timken steel mill

Durability Where Cars Need it Most

Hardly anyone thinks of buying a car or truck without testing its performance. How they would appreciate a way of judging that performance for *permanence*. You give them every assurance by mentioning Timken Bearings.

The *material*—Timken electric steel—is the most enduring steel for carrying motion. It is made in the Timken steel mill—with the world's largest output of electric steel.

The *design*—tapered *POSITIVELY ALIGNED ROLLS*—gives greater thrust and radial capacity, crowds friction to the vanishing point, saves power, and conquers wear.

Supreme in both material and design, it is little wonder that Timken Tapered Roller Bearings are dominating industry—standard in all types of industrial machinery and in 91% of all makes of motor vehicles in America.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

TIMKEN *Tapered Roller* BEARINGS

VESTA

DEALERSHIPS

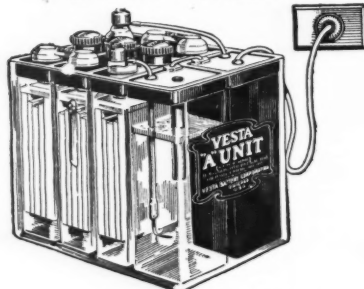
GREATLY INCREASED IN VALUE



Light
Socket
TRICKLE
CHARGER
\$10 — Pacific
Coast \$10.50



\$2.00 \$2.25
QUALITY TUBES



RADIO Light Socket "A" UNIT
3-in-1, "A" Battery, Trickle Charger
and Built-in Hydrometer

Vesta Dealerships, both in Radio Units and Batteries, which are so closely allied, have mounted in value, because of the great success of The Vesta Policy of Quality.

Within the past year Vesta has entered a new period in sales volume — far exceeding any former year.

We firmly believe that, primarily, this is because of the high standard of quality in Vesta Products.

Vesta is "going-over" BIG!

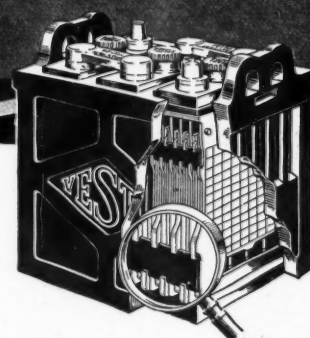
The advertising behind this good name has been productive because of Vesta's substantial foundation.

The New Vesta Radio Products have further increased the value of the line.

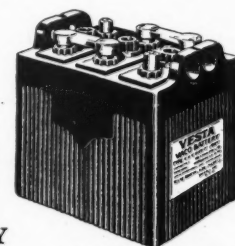
NOW, dealers who have this COMPLETE QUALITY LINE are the leaders in their community. The profit possibilities are far greater than ever before.

Vesta Central Distributors will supply you promptly with these products and the Vesta Sales Helps. Send coupon.

VESTA BATTERY CORPORATION
2100 INDIANA AVENUE
CHICAGO



VESTA ISOLATOR BATTERY
The Highest Quality Automobile Battery



VESTA VACO AUTO BATTERY
Standard Construction but Vesta quality material and skill in building—at a price to meet any competition.



RADIO "A" BATTERY
The Highest Quality for Radio

VESTA

AUTO-RADIO PRODUCTS

Vesta for Vitality

WRITE HERE

VESTA BATTERY CORP., 2100 Indiana Ave., Chicago, Ill.
Please have your Central Distributor near me present the Vesta

☐ Radio Line

☐ Auto Battery Line

Name

Address

City

State

FOR OVER 29 YEARS — MILLIONS HAVE PREFERRED VESTA QUALITY

CHICAGO, NOVEMBER 25, 1926

Parts Show Reflects Growth of Maintenance Business

Extensive Line of Service Units and Equipment Displayed at Second N. S. P. A. Exhibit in Chicago

By A. H. PACKER

THE growth of the service division of the automotive industry was seen in the second annual show of the National Standard Parts Association at which approximately 100 makers of automobile parts displayed their wares at the Sherman Hotel in Chicago last week. In this show was seen the demand of the garage and repair shop which does not confine its operations to any one make of car and must have a source of supply through which all of its parts may be obtained.

The ordinary repair which is rudely summed up on the bill as "labor and material," if properly made, might better be designated as "service engineering and well designed parts" for this more nearly sums up the repair which when properly made builds up the unit in accordance with factory standards.

In the various exhibits were found the best engineering practices being incorporated in the products with which motor cars are serviced. Better materials are being used, as is shown by one concern adopting molybdenum steel for all, instead of part, of the construction of its product. Another concern making shafts, cuts splines with a continuous hobbing process, just as gears are cut, so that inaccuracies which might be present in a milling job are eliminated. Another concern making piston inner rings has studied the question of adequate wall pressure evenly maintained, and its product and the recommendations made in connection with its use reflect this careful engineering study.

Some development in service methods may come from the laboratory of the large concern, but more come from the many small laboratories, the service shops which meet the hard cold facts of every day experience. One development seen at the show, and which has without doubt, come from the men in the field, is the drill-



W. C. Stettinius, newly elected president of the National Standard Parts Association. Mr. Stettinius is president of the American Hammered Piston Ring Co.

ing of holes in the lower ring groove. Many pistons are now available which have these holes already drilled so that the oil type ring which permits excess oil to get to the back of the groove can be readily used without extra labor of drilling 10 or a dozen holes in each lower groove. The pioneer along these lines was the ingenious shop man, who, when oil pumping began to be experienced, took a file and chamfered the edge of the lower ring groove and then drilled holes at an angle to accomplish quite effectively the job that is done today with more precise methods.

Another instance where practical experience has shown the kind of parts that are needed is in the fitting of piston pins and bushings. The common practice of carefully operating a new car for a certain period shows that the natural operation of the parts on each other produces an anti-friction surface which is hard to duplicate by machinery. This goal is being approached more closely, however. The aim is of course to produce a mirror like finish on both bushing and

pin, and more precise methods of reaming or broaching, together with improved mirrorlike surfaces given to the pins, insure the job against high initial wear after the overhauled car is turned over to the customer.

While some new items are seen, it is observed that in most cases the booths showed standardized lines. Perhaps it is gaskets, which in the material chosen by the manufacturer, are made in all conceivable shapes and forms to be used on any car at any point requiring a gasket. Another maker may have pistons in iron or aluminum, many manufacturers having both types, and again we find them available for all cars, regular and oversize, finished or semi-finished.

The whole business of automotive parts is founded

(Continued on page 15)

Dealer Success

Comes from Sound



Arthur A. Schulte, President Nolan Chevrolet Co.

Nolan Chevrolet Company of Casper, Wyoming, Started in 1924 with 250 Car Contract and in First Six Months of 1926 Sold 500 New Cars

By SAM SHELTON

convincing he can be and how important an asset he has in that one characteristic.

When Mr. Nolan signed a Chevrolet dealer contract in April, 1924, he did not have a building from which to operate, but he did have some definite ideas about automobiles sales and service gained from previous experience. He opened an office in a shoe store and began selling automobiles. He had agreed to take 250 cars the first year. Before Dec. 31, he had delivered 300.



J. P. Nolan, general manager Nolan Chevrolet Co., in his office

BEGINNING with an office in a shoe store, delivering 20 to 30 cars a month from the freight depot, the Nolan Chevrolet Co. of Casper, Wyoming, is now one of the outstanding Chevrolet dealers in the United States. In the first six months of this year this company, which was established in April, 1924, delivered 500 new cars and didn't have any serious used car problem.

The service efficiency of this company, used to put second hand cars of all makes in readily salable condition as well as to keep customers satisfied, is one of the commendable features of the business. This, together with the effective selling plans devised and put into execution by J. P. Nolan, general manager, has served to keep the company jumping from one new record to another in the short period of existence, and to keep it at the forefront of interest in Chevrolet circles in the United States.

Chevrolet dealers throughout the United States have heard about Nolan and his success and other dealers will be interested in knowing something about how he has done it.

When Mr. Nolan visited at the MOTOR AGE office recently at the invitation of the editor he was modest about his accomplishment. But he was proud of it and pardonably so. He was particularly enthusiastic about the product he is selling and in that one thing no doubt lies a considerable measure of his success. The earnestness with which he extolled the virtues of his car, even with no thought of selling in mind, demonstrated how

Within a few months Mr. Nolan had his business housed in a new building which was especially well equipped to take care of the sales and maintenance needs of his customers. He continued to perfect his organization and closed the year 1925 with 500 new car sales. As previously stated he sold as many new cars in the first six months of this year as in the whole of 1925.

In addition to the headquarters store at Casper the company has a branch at Lavoye, opened in the fall of 1924, and one at Glenrock, opened a few months later.

Branch of Nolan Chevrolet Co., at Lavoye, Wyo.



Business Methods

The branch at Glenrock, Mr. Nolan believes, gives that town with its population of 250 the distinction of being the smallest town in the country having an exclusive Chevrolet sales and service agency. This branch is operated by a combination manager and salesman and a combination service and parts man.

Now that we have stated the essential facts about the progress of the Nolan company let us consider some of the policies and practices that have contributed to that success.

Organized by Departments

In the first place the business is organized by departments and the accounting system shows at any time just



how each department stands with reference to profit and loss. The departments are: New car sales, used car sales, shop, parts, accessories and miscellaneous.

In manning his organization Mr. Nolan exercised some of the ideas that he had gained in his previous experience in the automobile business and other businesses. He selected his service manager with unusual care and it is worthy of note that he did not choose an experienced automotive mechanic. The man he picked out came from a real estate office and knew practically nothing about the technical side of an automobile. But he was a man of high intelligence, keen, aggressive and well trained in the art of meeting customers. Mr. Nolan sent this man to the Chevrolet factory service school for an intensive course and when he came back he took charge of the service department with gratifying result.

Nolan Chevrolet Company's branch at Glenrock, Wyo.



Ralph L. Schulte, vice president, Nolan Chevrolet Co.

Headquarters of Nolan Chevrolet Co., Casper, Wyo.

The selection of salesmen was made with equal originality. Some came from insurance offices and others from behind the counters in local stores, but none previously had been automobile salesmen. Mr. Nolan considers this move one of the best he made.

And the stock room man that he selected was formerly a bank clerk. For mechanics he necessarily employed men who had had previous experience in that line.

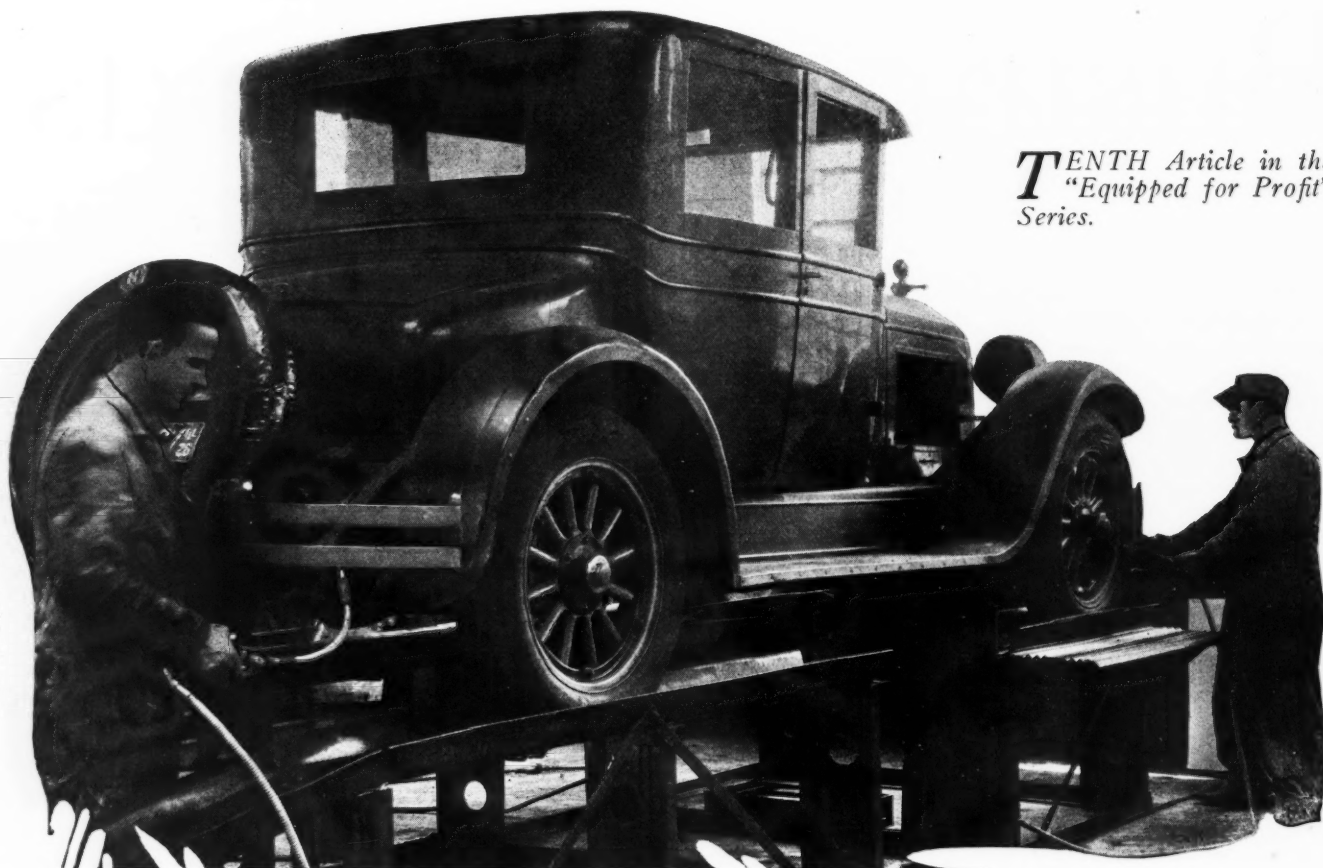
An effort is made to sell certain accessories on all new cars and in 50 per cent of the sales items valued at \$50.50 cents retail are included in the deal. The items of equipment most commonly included in a new car sale are bumpers, moto meter, radiator cap, chains and spare tire.

In handling used cars the company has adopted the policy of buying second hand vehicles from the new car customer instead of making an appraisal and allowance. Mr. Nolan says that he finds the average man susceptible to reason and when he points out how he will have to take a loss on a used car that he pays too much for, the customer will agree that he does not expect the dealer to suffer a loss.

All used cars that are worth it are repainted and reconditioned before being offered for sale.

In the development of this business Mr. Nolan has had the cooperation of two associates who have had wide experience in the merchandising field. They are Arthur A. Schulte, president, and Ralph L. Schulte, vice president, of the company.

Lubrication is a Profit



*T*ENTH Article in the
"Equipped for Profit"
Series.

Lack of This

EQUIPPED FOR PROFIT Lubrication Service

Probably more oil will be pumped than any other lubricant. To speed up this work, prevent the possibility of contamination by handling, and to assure the customer that he is getting the genuine article some refiners supply oil pumps to be attached directly to the oil drums. A nominal price of about \$6.50 is usually charged.

A similar condition exists with rear axle and transmission lubricants. Pumps and dollies are generally supplied at a nominal price or gratis with a certain quantity of gear lubricants.

For lubricating the chassis with a high pressure system one of the automatic pumps operated either electrically or pneumatically is to be recommended. The larger air operated pumps cost about \$400 with an additional expense of about \$100 for the necessary fittings and labor to connect up four outlets on one or two grease racks. Smaller portable compressors list from \$60 to \$75 for the hand operated ones to \$115 for the air operated type.

It is hardly necessary to comment on the need of a flushing bucket or similar means of cleaning gear cases. If steam is handy it is practical to extend a steam line to clean out axles and transmissions.

A spray gun operated with compressed air and costing between \$2.50 and \$8 speeds up the spring oiling job and eliminates the body squeeks in a way that the owner can not equal himself.

Steel greasing racks cost between \$100 and \$150. Pits will vary in price according to the kind of construction used.

CORRECT lubrication is the life of the automotive industry. Without lubrication the modern motor car would be impossible and the degree to which the car is a success is determined largely by the attention given to lubrication.

Designers and manufacturers are agreed that there is no one thing that is more important than correct lubrication of the engine, transmission, differential and other parts of a car or truck if the maximum service is to be obtained at the minimum cost.

Practically every automobile instruction book carries the warning that the purchaser must use only the highest grade lubricants and apply them correctly if the guarantee is to hold. But regular lubrication is a difficult and dirty job for the owner to perform. He recognizes that the cost of lubrication is only a very small item in the total cost of operation and consequently it takes but little sales effort to persuade him to drive in regularly for service.

Lubrication comprises about 2½ to 3 per cent of the cost of operation and this little item directly affects depreciation, service and repairs that average about 40 per cent of the total cost of running a car or truck.

Pointing out such facts to the buyer of a new car or to the man who drives in for service or gas can be done in an interesting and conversational way that builds business.

A permanent business can only be built upon a found-

able Maintenance Service

*The Regular and Skilled Attention
of the Automotive Service Man to
the Oiling and Greasing of Cars
Means a Substantial Business*

By C. EDWARD PACKER

dation of confidence, and there is nothing like quality merchandise for building confidence in the minds of motorists.

A clean place of business, facilities for speedy service, courteous attendants, plus quality products, are the foundation of success in the business of selling correct lubrication. Add to the quality lubricants a chart by means of which they can be scientifically fitted to each car and the stage is set.

Quality in oil is not sufficient to assure correct lubrication. The oil must also be of such a body and character as to fit the unit to which it is applied. It is impracticable for the car owner or even the dealer to try to analyze the design of each car and to attempt to prescribe a lubricant for it. Lubrication engineers together with designing engineers build the chart of recommendations

Contributed to This

which if followed will give any dealer the reputation for being a lubrication expert.

In selecting an oil for an engine four factors must be considered. They are the heat of the unit, the system of distribu-

Flat Rates for Lubrication Service

Changing crankcase oil and flushing the engine with light oil and refilling with the correct grade of oil is usually done free—the only charge being for the material used.

Transmissions and differentials are usually brought up to the proper level, charging for the lubricant at 25 cents a pound.

Draining, flushing and refilling wet type clutches ranges from 35 cents to 75 cents, material included.

Complete oiling and greasing of Fords, \$1.00 to \$1.50.

Complete oiling and greasing of other small cars, \$1.50 to \$1.75.

Complete oiling and greasing of medium size cars, \$1.75 to \$2.00.

Complete oiling and greasing of large cars, \$2.00 to \$2.50.

Cleaning transmissions and differentials, 50 cents to 75 cents.

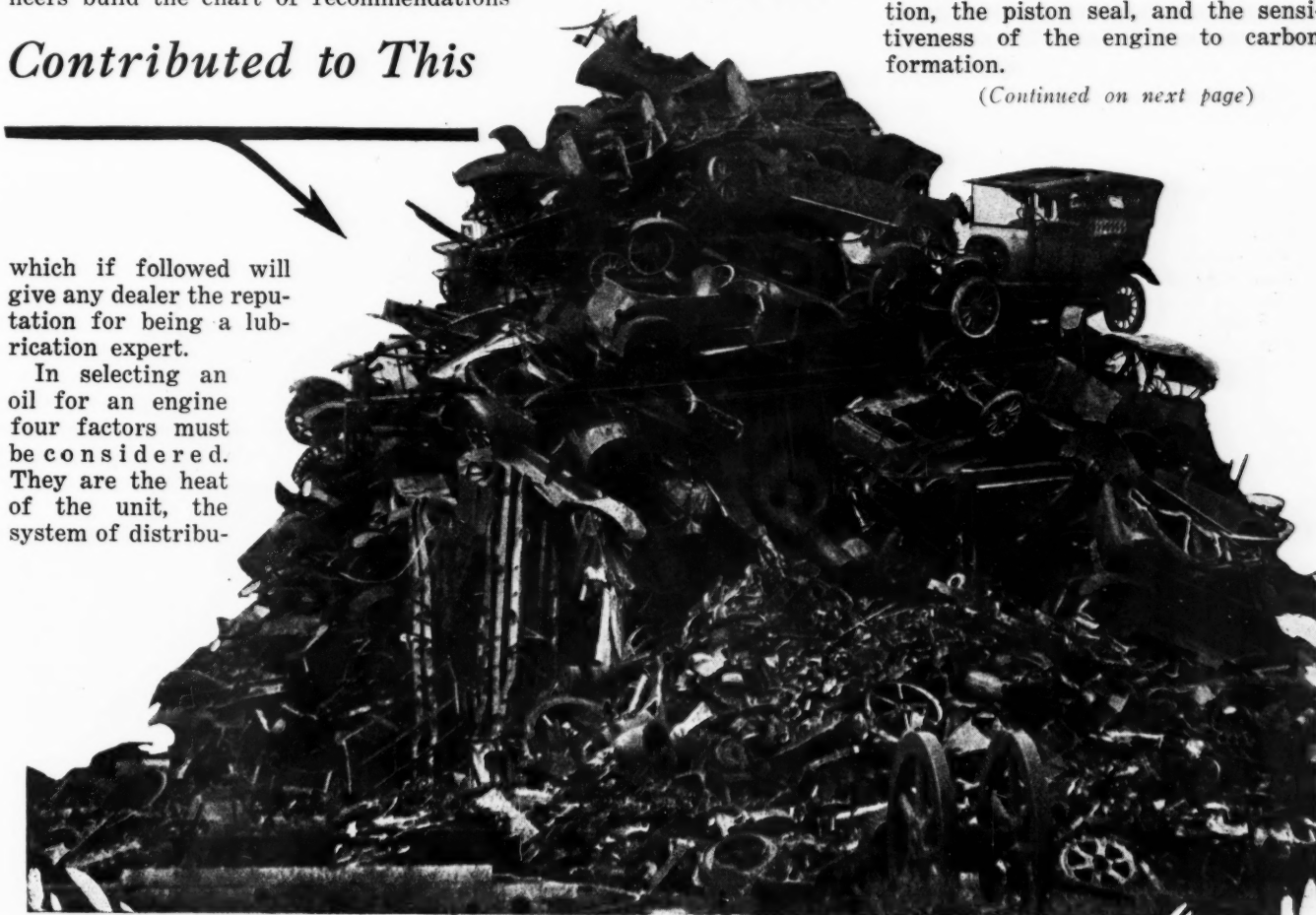
An extra charge of about 25 cents to 50 cents is generally made where cars are equipped with the old style grease cups instead of oil cups or high pressure lubricating fittings.

The above prices include material except cylinder oil and transmission and differential lubricants.

Local working conditions, competition, and the like may make a slight deviation from the suggested prices necessary.

tion, the piston seal, and the sensitivity of the engine to carbon formation.

(Continued on next page)





Displaying goods attractively is the first step in selling them. This service station gives snappy service from bottle racks and frequently sells an extra quart or two to be carried for emergencies



Another attractive display that boosts the sale of 5 gallon cans of oil

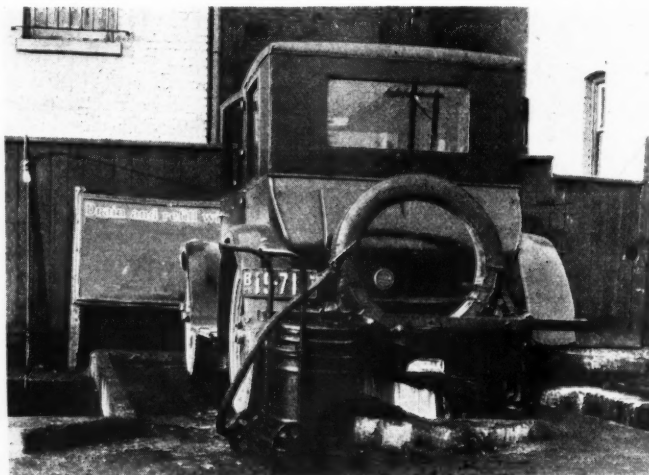
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Regarding Heat. It is common knowledge that all oils thin out when heated and as a consequence, where high temperatures are encountered the tendency is to select a heavy oil that is rich in lubricating value.

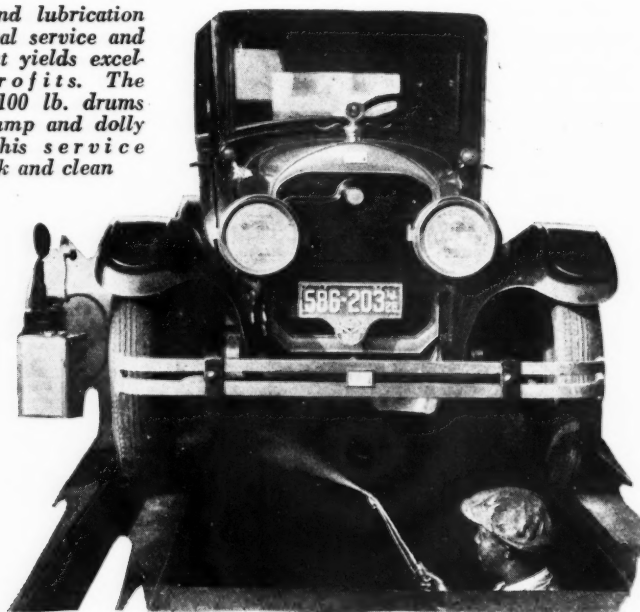
Constant duty engines, air cooled engines, and Knight engines are generally hot running. Other engines either as a result of design or service may not develop quite such high temperatures.

Regarding Distribution. But how foolish it would be to select a heavy oil to satisfy the heat factor and to ignore the ability of the engine's oil distributing system to handle the lubricant. There is a wide difference in oiling systems. The design and location of oil pumps

The proprietor of this station frequently sells a 5 gallon can of oil with each greasing job or oil change. The customer saves a little money in this way, is assured of a convenient supply at home, and the service station makes a nice extra profit



Rear end lubrication is a vital service and one that yields excellent profits. The handy 100 lb. drums with pump and dolly make this service quick and clean

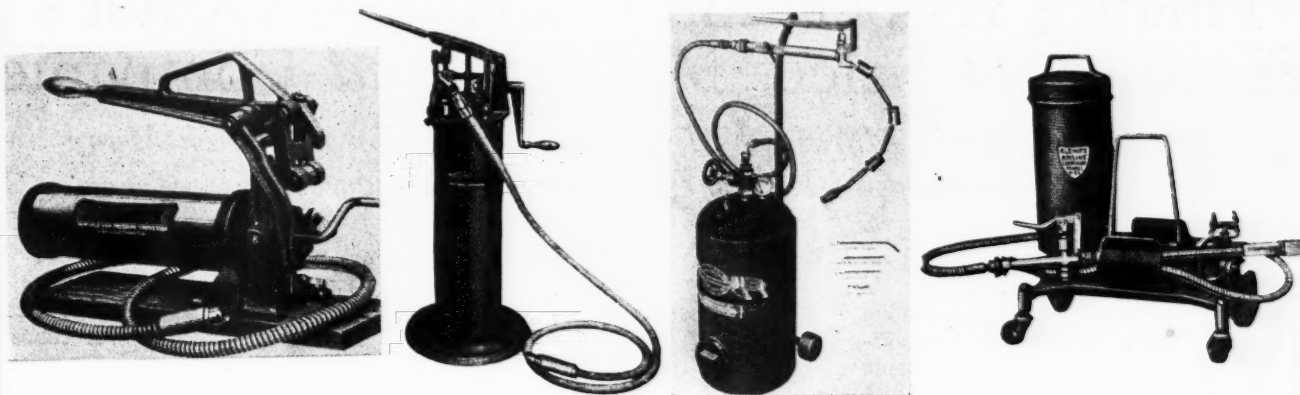


Spring oiling is quickly done with this spray gun and compressed air. Body squeaks are also eliminated in this way

varies, area and mesh of oil screens vary, and the length and diameter of oil lines is rarely the same in any two makes of engines. The oil selected *must* circulate or the results will be disastrous.

Piston Ring Seal. The fit of the pistons and the material from which they are made, the fit and number of the piston rings, and the speed of the engine all have a bearing on the oil that should be used. Where loose fits and low speeds are encountered a heavy oil serves best, but where close fits and high speeds prevail a lighter oil is needed to satisfy these conditions.

Carbon Formation. Oil is not responsible for all of the carbon that forms in an engine but the use of the wrong oil may greatly increase the rate of deposit. In extremely hot running engines it is possible to use heavy oils



Different types of high pressure lubricators. These prove profitable in service stations and garages.

and to burn clean the excess oil that works up on to the top of the piston. However, a heavy oil in some cars would not burn clean from the heat of combustion and excessive carbon would result.

Obviously the selection of the correct oil requires an intimate knowledge of the lubricant under consideration plus a thorough understanding of the engine to be lubricated. As the responsible refiners of high grade lubricants maintain a staff of lubricating experts to make the chart the dealer is passing up a good thing if he fails to display the chart so that the customers can read it.

In general we get about what we pay for, and oil is no exception. Of course price does not determine quality but quality does determine price. Cutting the price is bad business as it throws away your just profits and arouses suspicion in the mind of the customer.

Giving the customer a choice pleases him. It flatters him by recognizing his judgment. When making a sale try this, "Do you want (name your best oil) or (name your second best oil)." Generally the first mentioned oil, and the one probably selling at 5 cents a quart more will be the choice.

As the seasons roll by in your territory the lubrication requirements change. Summer brings its need for heavier oils and gear lubricants in many cases while



Large high pressure lubricator. Ideal for the stations specializing in lubrication

in winter the lighter lubricants are in demand.

By means of mailing lists, and the telephone, the importance of changing lubricants with the weather, and the need of giving close attention to the lubrication of the car at all times, can be brought home to the motorists.

Such extra effort brings extra profits.

Complete, Correct Lubrication

A greasing rack or pit with proper lubricating equipment is rapidly becoming one of the big profit producers in garages and dealers' shops as well as at the filling station.

The reputation of a dealer is dependent upon the performance of the car he sells, and the performance of the car is dependent upon the quality of the lubrication.

Each new car should be carefully lubricated before delivery and this service should be repeated at the intervals prescribed in the instruction book. This will bring extra profits to the dealer who is equipped to handle this work and who actively solicits the business. Such service does much to eliminate the need for free service and adjustments.

Those who render intelligent lubrication service are rendering a very vital service and one which will bring ever increasing profits.

Parts Show Attracts Interest

(Continued from page 9)

on the fundamental fact that cars in use wear out, that the parts which wear or break must be replaced to keep the car in service and that the sale and installation of these parts makes money for everyone all down the line, from the manufacturer through the jobber to the dealer and repairman and even to the customer who with minimum delay and at reasonable cost again has a useful vehicle which he can use in his business where he in turn makes money.

A survey of the show impressed one with the number of exhibits which display a complete line of pistons, a reflection of the fact that the operation of the engine,

the heat element and the danger of getting inadequate lubrication to the pistons and cylinders insures a steady business in the replacement of this essential component of the engine. Other booths showed valves, also made in all conceivable sizes to suit any engine, and designed also in oversizes so that repairs are simplified when seats have burned and need to be reamed larger.

Other items exhibited included such parts as axle shafts, fan belts, differential gears and pinions, engine bearings for crankshaft and camshaft, brake drums, timing chains, bolts for chassis, universal or starter, shims both multiple and single, springs, silent gears, brake lining and lining machines, mufflers and battery terminals and cables.

Finance Association Champions Dealer's Freedom to Select Methods *and* Companies

Large Attendance Marks Third Annual Convention at Which Many Features of Instalment Selling Are Discussed

By JOHN C. GOURLIE

MOUNTING repossession and intensified competition between independent finance companies and those having direct relations with the automobile factories formed the background for the reports and deliberations in Chicago this week of the third annual convention of the National Associations of Finance Companies. The meeting drew about 450 members and guests, or double the number of a year ago, and most of those in attendance came to find out what was going to be done about the factory finance plans.

They were kept in suspense until the second day of the convention, when Emlen S. Hare, vice-president, Hare & Chase, Inc., and a leader in the campaign being waged by the independents, rose with the following resolution:

"Resolved, that the dealer be permitted freedom of choice to select the method of financing and that finance company which will best serve him in his locality."

This was passed without discussion. Some of the members had hoped for a stronger resolution, condemning the payment of subsidies to finance companies, but the statement of principles was definite enough to join clearly the issue between the independents and factory companies. The factory relations committee, of which Mr. Hare is chairman, was continued for another year. In his report to the convention, Mr. Hare said the committee stood for the following principles:

1. Financing rates should be high enough to cover the entire cost of financing plus a fair profit.
2. Dealers should have a free hand in financing.
3. Advertising of rates and terms should be eliminated.

Subsidies to finance companies, said Mr. Hare, had been started through competition and continued through fear, although the automobile companies that were paying no subsidies shows increases in sales that compared favorably with the gains made by others having lower time-sales rates through payments to finance companies.

From statements made on the floor by Mr. Hare and others it was easy to see that many finance companies were beset by three problems—increasing difficulty in borrowing from the banks; finance rates offered by factory companies that they were unable to meet; and a definite tendency in the cases of some of the largest manufacturers to bring heavy pressure on dealers to use the factory finance plan.

That the national finance companies found it easier



E. M. Morris of the Associates Investment Co., South Bend, Ind., who was elected President of the N. A. F. C., by the Board.

to borrow from banks than local companies was asserted several times in conversations among member groups. The impression seemed to be general that this was at least partly attributable to the advertising of rates and terms, which was said to be a source of unfavorable criticism. So all troubles tended to be laid at the door of the factory plans.

Increased repossessions in 1926 over 1925 were shown by a survey conducted by C. C. Hanch, general manager of the association. All classes of paper participated in the increases, but curiously enough the ratio of gain was greater in the transaction handled on standard terms than in those on less than 30 per cent of the time-selling price down or more than 12 months to pay. Apparently the non-standard transactions had been scrutinized more carefully.

Harry A. Wheeler, president of the Union Trust Co., Chicago, told the members that they ought to judge credit transactions not merely on the basis of the collateral and how well it was margined, but to follow banking practice to the extent of making sure that the purchaser would be able to pay the note even if the collateral were wiped out.

Mr. Wheeler said that finance companies had an enormous responsibility, as industry, with the help of time sales, was geared up to high production at low per unit profits, and any breakdown in the machinery of time-selling would inevitably have a serious reaction on trade and industry in general. He therefore urged the utmost caution in credit extension.

C. A. Vane, general manager of the National Automobile Dealers Association, urged the financing companies to pay more attention to the problems of the smalltown dealers. Local conferences, he declared, in which dealers and finance companies might participate would go far toward eliminating costly misunderstandings and the pressure of unsound practices.

Small-town dealers, Mr. Vane continued, had often been misjudged as to their credit positions. The character of the dealer even more than his net worth ought to be considered, said Mr. Vane, and all departments of his business and not only the new car sales.

Alfred Reeves, general manager of the National Automobile Chamber of Commerce, told the members that reports of the slackening in motor car business had been exaggerated, as usual. He saw the outlook as still bright. Financing had been a big boon to the automobile industry and he hoped the companies would continue to operate with intelligent conservation. Opposition to financing mainly came from industries unable to profit by it, he said.

Time Payment Survey Shows Used Car Repossessions Approach Danger Line

SEVERAL important developments in automobile selling were recorded in the survey made by C. C. Hanch, general manager of the National Association of Finance Companies, and made public at the third annual convention of the association in Chicago. Among them were these:

1. The repossession of both new and used cars has increased materially as compared with the preceding year.
2. The average loss per repossessed car has increased from \$50 in 1925 to \$65 in 1926.
3. The percentage of time payment sales made on terms more liberal than those recommended as standard by the association has decreased.
4. The percentage of companies requiring dealers' endorsement of time payment paper has decreased.
5. There has been a substantial decrease in the ratio of used cars handled to total new car sales.
6. It was determined that 64 per cent of new car sales are made on time.

The percentage of repossession in new car sales made in accordance with standard terms was 2.09 this year as compared with 1.72 last year. This increase is probably explained by the fact that this year's survey covered a period of six or eight months at the close of 1925 and in the early part of 1926 when competition was unusually severe and when there was a tendency to bid for business on the basis of longer terms and lower down payments. This same condition no doubt accounts for the increase in loss on repossessed cars, which went up from \$50 to \$65.

From the banker's standpoint this repossession ratio on new car sales is considered well within the realm of safety, but in the used car market the repossession ratio made a much greater increase, from 3.01 per cent in 1925 to 4.27 per cent in 1926, and closely approached the danger line as viewed by the money lenders.

In other words, the new car repossessions increased only 21 per cent in 1926 but the used car repossession increased 41 per cent, or nearly twice as much as new cars. This indicates an increasing hazard in used car time payment sales which no doubt is attributable to the facts that the growing preference for closed cars and the introduction of many new cars in the lower price ranges have diminished the value of used cars.

In both the new car and used car fields the survey shows that whenever the terms are more liberal than those recommended as standard the hazard increases at an alarming rate.

At the same time there has been a satisfying decrease in the proportion of paper made on terms more liberal than standard, which is 33 1/3 down on new cars and 40 per cent down on used cars, the balance in 12 equal monthly payments.

It is noticed that the average purchase money note on new cars increased from \$550 in 1925 to \$595 in 1926. This increase probably is due to the effort made by some large manufacturers during a part of that period to promote the sale of new cars on very small down payments. The effort was discontinued after a brief trial, but not until a considerable volume of business had been written on that basis. The average used car note decreased slightly.

This year's survey shows only 90 used cars handled for every 100 new cars sold, as compared with 99 used cars to 100 new cars in last year's survey. This indicates that dealers, determined to reduce their losses on used cars, have stiffened themselves against over-

allowances with the result that many new car buyers have disposed of their old cars in other ways than trading them to the dealer.

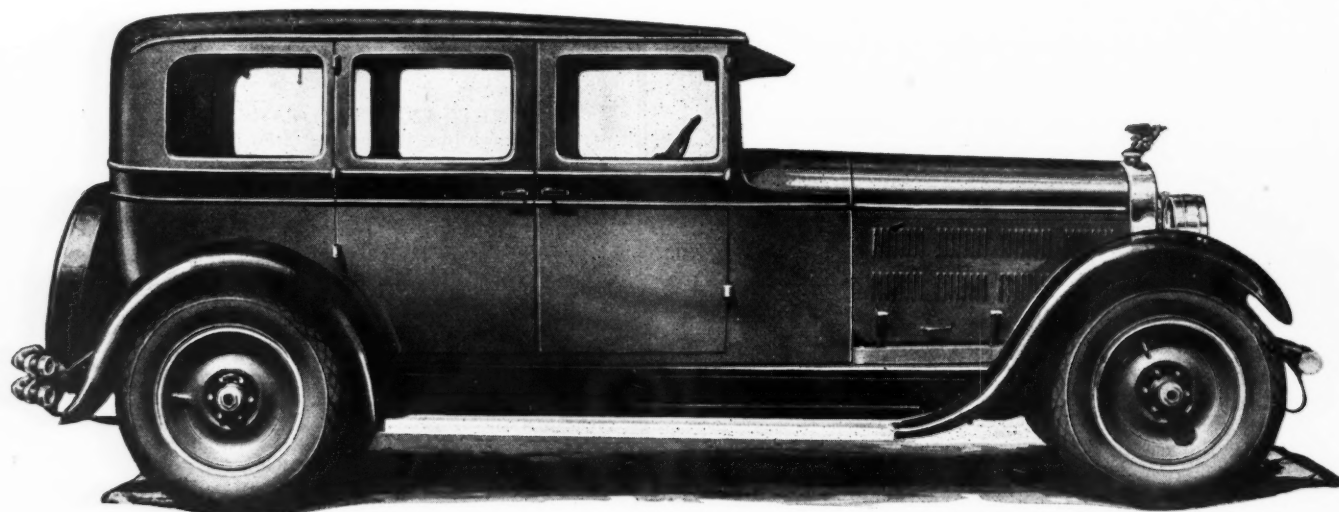
SURVEY OF TIME PAYMENT SALES

Average or composite experience of about one hundred fifty representative finance companies, based upon individual averages for one year, as of November 1.

NEW AND USED CARS		1925	1926
1.	Average loss per repossessed car which had 12 or less equal monthly payments	\$50	\$65
2.	Average loss per repossessed car which had 13 to 18 equal monthly payments	78	94
2A.	Increase of hazard over standard terms	57%	44%
3.	Average loss per repossessed car which had a balloon note, or more than 18 monthly payments	\$220	\$158
3A.	Increase of hazard over standard terms	341%	143%
NEW CARS			
4.	Percentage of repossessions where down payment was 33 1/3% of cash price or 30% of time selling price	1.72%	2.09%
5.	Percentage of repossessions where down payment was 25% of time selling price	3.81%	4.02%
5A.	Increase of hazard over standard terms	122%	92%
6.	Percentage of repossessions where down payment was less than 25% of the time selling price	10.96%	11.52%
6A.	Increase of hazard over standard terms	537%	451%
USED CARS			
7.	Percentage of repossessions where down payment was 40% of the cash price or 37% of time selling price	3.01%	4.27%
8.	Percentage of repossessions where down payment was less than 37% of time selling price	6.16%	8.57%
8A.	Increase of hazard over standard terms	105%	101%
9.	Used car paper percentage of total auto retail paper handled	31%	33%
10.	Percentage of companies requiring dealer's endorsement of all used car paper	50%	46%
10A.	Percentage of companies requiring dealer's endorsement as part of used car paper	44%	40%
NEW AND USED CARS			
11.	Percentage of auto retail paper calling for 13 or more monthly payments	18.32%	13.24%
12.	Percentage of auto retail paper with (35% or less on used cars and 25% or less on new cars) down payment	19.36%	9%
13.	Average amount of purchase money note (new)	\$550	\$595
	Total of installments per car (used)	280	277
14.	Percentage of companies handling commercial vehicle paper		64%
15.	Percentage of all cars sold on the installment plan	75.5%	
16.	Percentage of used cars traded in on new and used cars, to total new cars sold	99%	90%
17.	Percentage of new cars sold on the installment plan		64%

Standard terms as recommended by the National Association of Finance Companies are 33 1/3 per cent down payment on new cars and 40 per cent down payment on used cars, the balance in not more than 12 equal monthly payments.

Gardner Has Two New

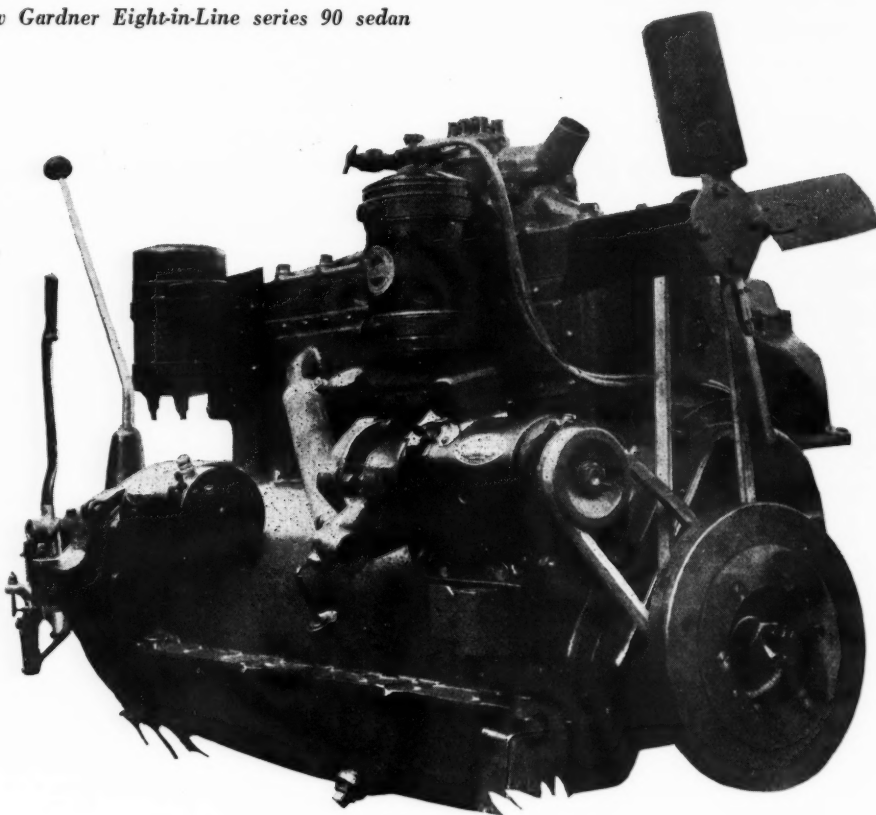


The new Gardner Eight-in-Line series 90 sedan

TWO new cars, powered with European type eight-in-line engines, now head the line of automobiles made by Gardner Motor Co. of St. Louis. The model 80 with a 65 h.p. Gardner Lycoming 2¾ in. by 4¾ in. engine is made in a roadster at \$1395 and a sedan at \$1695. Outstanding features of this car are the four wheel mechanically operated brakes with single hex nut outside adjustment, 30 by 5.25 balloon tires, vibration damper, clear vision ventilating windshield, double filament depressable beam headlamps, ignition lock with switch integral with coil and Fedco numbering system with use and occupancy insurance which pays the owner \$5 a day for 30 days in case the car is stolen. The wheelbase of this model is 122 in. and the tread is standard.

Model 90 has a chassis of 130 in. wheelbase and is powered with a Gardner Lycoming 3¼ in. by 4½ in. engine developing 75 h.p. It is made in a Victoria, sedan or brougham at \$2295 and a roadster model at \$1995. Features of the model 80 are also seen in the model 90. The tires, however, are 32 in. by 6 in. Other standard features of the model 90 include centralized automatic lubrication system, Air Maze air cleaner, gasoline strainer, Purolator and thermostatic heat control with heat indicator on instrument panel. The Air Maze is a screen type cleaner which is said to have no detrimental effect on the engine power at any speed. It is readily cleaned by removing and dipping in gasoline.

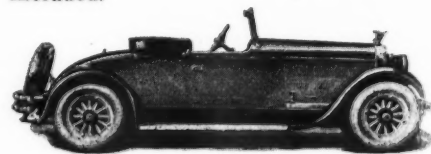
Equipment on the model 90 includes snubbers front and rear, five Distel wheels, automatic windshield wiper, stoplight, rear vision two part mirror, one part for night and the other for day driving, bumpers front and rear, tire cover and trunk on brougham and Victoria.



Front and right side of series 80 engine showing vibration damper, self lubricated fan, starter, generator and pump. The purolator and the tank of the Alemite lubrication system, included in the de luxe equipment, are also shown

On the model 80 the equipment regularly supplied includes dash type electrically operated gasoline gage, rear vision two part mirror, stoplight, automatic windshield wiper and heat indicator on dash. Additional De Luxe equipment on model 80 includes tire cover, snubbers front and rear, bumpers front and rear, Alemite chassis lubrication system, Air Maze air cleaner, gasoline strainer, Purolator, thermostatic heat control in cooling

system and the use of 30 by 6 in. tires. An extra charge of \$100 is made when this model 80 De Luxe equipment is included.



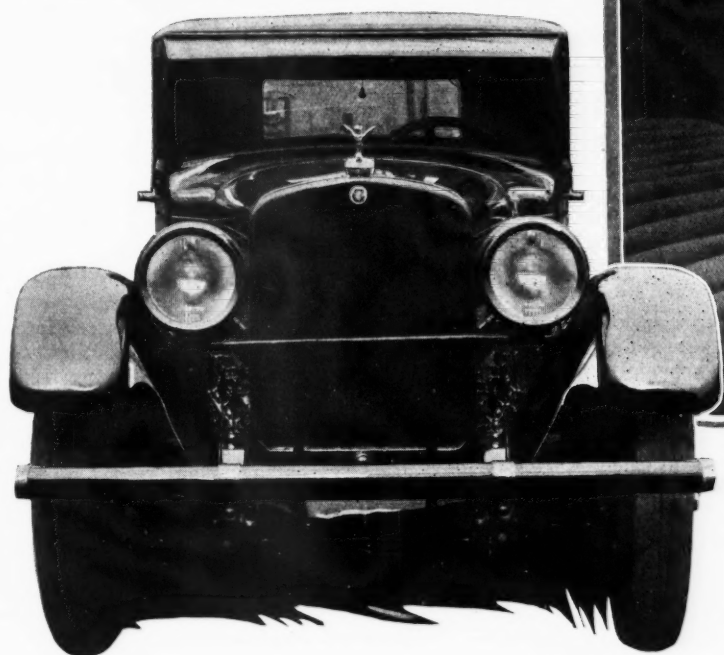
The roadster of the series 80 line sells for \$1395

Eights

*Smaller Model on 122 Inch Wheel-
base Lists at \$1695 for Sedan and
Larger Model on 130 Inch
Wheelbase at \$2295*

By A. H. PACKER

The central lubrication system supplies oil to the spring shackle bolts and does so in proportion to the oil requirement. This is accomplished by a

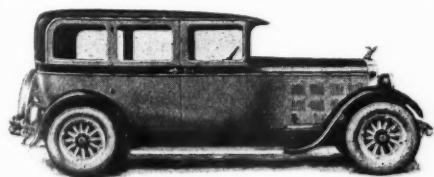


Front compartment of the model 80 showing the ventilating type windshield, the Fedco number plate and instruments grouped under one glass

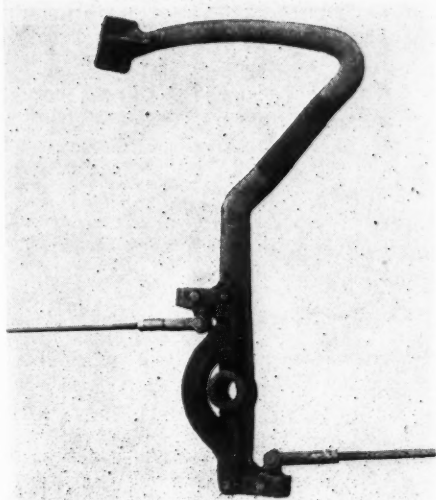
The series 90, front view showing radiator ornament and pleasing appearance of the full crown fenders

mechanism in the oil tank which is actuated by the up and down motion of the car. Accordingly, more oil is fed on rough roads than on smooth ones, so that the shackle bolts will be lubricated in proportion to the frictional action on them. Another feature of this system as installed on these two Gardner cars is the fact that no flexible oil lines are employed, the oil for the lower shackle bolts being carried through oil ducts in the shackles themselves. Other parts of the chassis are lubricated with an oil gun supplied with the car.

The axles are Columbia and have four wheel brakes as previously mentioned. An interesting feature of the brake layout is the method of equalization.



Gardner sedan on the smaller eight chassis. The price is \$1695 with regular equipment

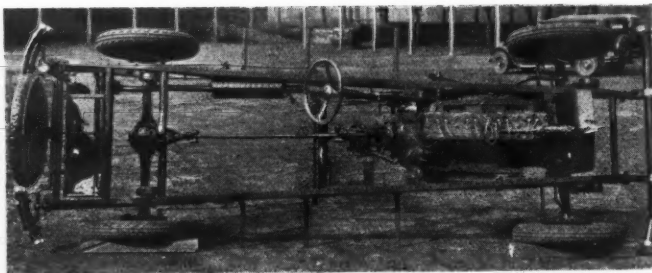


Details of equalizer operating between front and rear brakes. The up and down motion of the central member is limited by the hub of the pedal so that one set of brakes will be applied even should the other become inoperative. Additional equalizing is also provided for at front and rear brakes

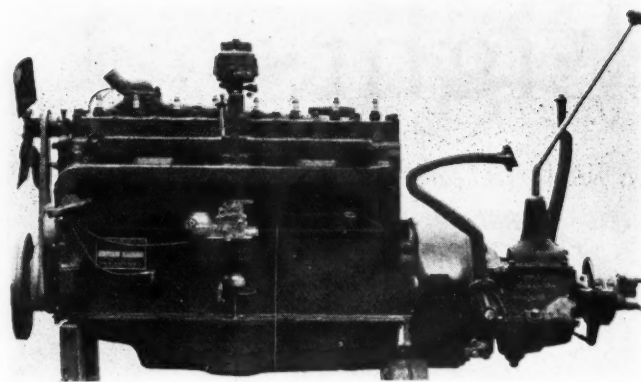
The front and rear brakes are equalized at the brake pedal and there is also equalization provided between the two front brakes and also between the two rear brakes. A novel construction at the brake pedal limits the equalization at that point so that if either the front or rear brakes should become inoperative for any reason, the other set would still function.

The emergency brake is on the transmission, a conventional emergency brake lever being located alongside of the gearshift lever in the center of the car. On the model 90 a special construction at the base of the gear shift and emergency brake levers insures against the entrance of air from under the car.

The engines of these two eights have removable cylinder heads and light weight gray iron pistons. Four $\frac{1}{8}$ in. piston rings are used, two being of the oil regulating type. Piston pin diameter is $\frac{7}{8}$ in. with bearing in the connecting rod on the model 90. On model 80 the pin is clamped in the rod and has its bearings in bushings in the piston. Oil pressure is regulated and on the model 90 a connection with the throttle gives



Plan view of series 90 chassis. Note drive shaft and universals. These carry oil supply which lubricates the bearing surfaces



Left side of the series 80 engine. This view shows the transmission brake and the equalizer on the brake pedal. A curved beam connects the two small bell cranks which connect with the brake rods

increased oil pressure at increased throttle opening.

Chain drive is used for the camshaft, the generator and water pump also being chain driven on model 90 while on model 80 a V belt drives pump and generator, there being another V belt which drives the fan. The fan carries oil inside its pulley and this oil is picked up by a tube and driven by centrifugal force through this tube to the bearing surface. Swan manifolds are used together with Schebler model SX196 carburetor on model 90 and SX222 on model 80.

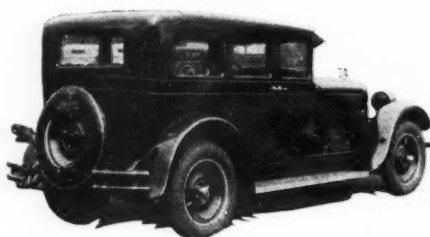
Frames are of 7 in. channel with double drop side rails giving a very low hung construction. Five tubular cross members are used to give exceptional rigidity and bumper supports are formed in the front and rear spring horns. Springs are semi-elliptic, the front springs being 38 in. long and the rear 57 in. Radiators are nickel plated and are coated with a special preparation to protect them while cars are in shipment or storage. This coating gives a sort of bronze appearance which is quite attractive and many Gardner owners leave it on. When desired it can be washed off with gasoline.

The steering gear is Ross cam and lever type with 18 in. all wood wheel.

The skill of the interior decorator is seen in this rear compartment of the model 90, the tones of which are made to harmonize with the exterior finish



The lighting control lever as well as gas and spark levers are on the steering wheel. Electrical equipment is Remy-Delco. Clutch is a 10 in. Borg and Beck on model 90 and 9 in. on



Rear view of the series 90 sedan

model 80. Transmission is made by Warner Gear Co. Fenders are of the full crown type especially made to conform to the lines of the cars. Wheels supplied as regular equipment are Disteel on the model 90 and wood on the model 80, although Budd steel wheels as optional equipment may be had at extra cost.

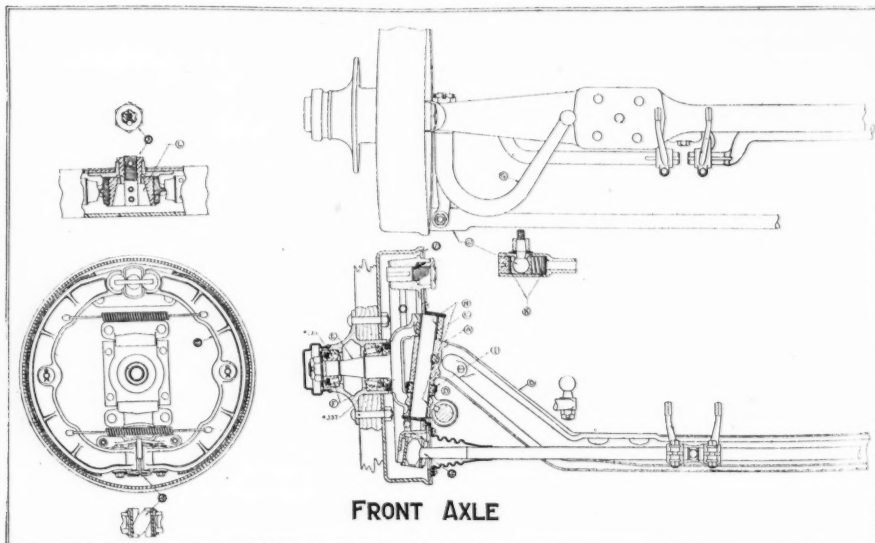
In line with the policy of making these cars appeal to the discriminating purchaser no pains have been spared in design and construction of the bodies. Interior upholstery and trim work has been chosen to harmonize with the external finish. The interior is genuine mohair in French plaits, hardware is

silver finish and paneling is Old English walnut. Other features of the interior are dome lights, distant control door locks, toggle grips, silk window shades and arm rests.

Many items of extra equipment are available and are installed at the factory when ordered at time car is purchased. These items on which the dealer gets an additional profit include special wheels, extra tires, special painting, shock absorbers, trunk, heater, clock, cigar lighter, Winterfront, windshield wings, spotlight in windshield glass, front driving light, extra cushion for driver (matches upholstery), ventilator eaves for closed cars, seat covers and spring covers.

For \$15 extra special rear axle gear ratios may also be obtained. The roadster which regularly has a 4.3 ratio may be equipped with a 4.9 ratio while the 4.9 sedan ratio may be changed to 5.3. This applies to model 80. On model 90 the regular ratios are 4.6 on the sedan and 4.25 on the roadster with 5.1 as a special ratio available for the sedan while the 4.6 ratio may be had for the roadster.

Sectional views of front axle used on the new Gardner eights. The brake is of the two shoe type and is provided with an external adjustment



Durator Piston Has Special Sealing Ring

A NUMBER of novel features are incorporated in the Durator piston which has been introduced recently by the Duroseal Corporation, of Cleveland, Ohio. Pressure at the piston head is applied directly to the pin bosses through rib structures while these bosses are entirely separate from a new type of skeleton skirt. In the design of the skirt, ample bearing surface is obtained and distortion due to the load on the piston head is minimized.

Perhaps the outstanding feature of the new piston is the ring design. Provisions are made for but two rings the lower of which is the slotted scraper type set in a drilled groove. The upper ring assembly consists of three segmental units of low friction non-scoring alloy. Due to the segmental construction, this ring assembly exerts no pressure on the cylinder wall except during the compression and firing strokes and it is stated that the pressure when exerted is in approximate proportion to the pressure within the combustion chamber which tends to expand the segmental assembly to produce the sealing action.

The illustration shows the components of the piston and ring assembly. A flat head and short cylindrical section in which the rings are mounted are joined to a ring forming the bottom of the skirt by two relatively narrow



Durator piston with nickel iron skeleton structure carries one scraper ring and at top a special three-piece alloy ring which is expanded by gas pressure. Piston bosses are joined to heads by two ribs each

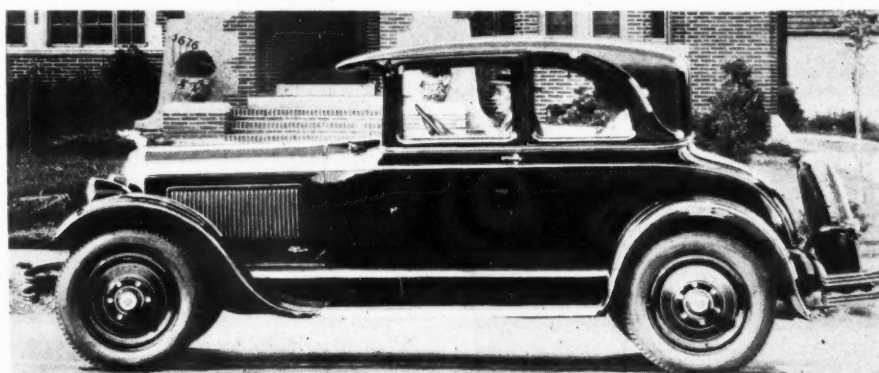
row straps. As the piston is assembled in the engine, these straps are on the lateral center line and their outer surfaces are relieved so that the piston bears on the cylinder wall at the full ring at the bottom and a similar area located just below the scraper ring. The piston pin bosses are located between these two rings and are connected with the head by two ribs at each side which extend upwardly inside of the top of the piston.

Another feature which contributes to

mechanical strength and elimination of oiling troubles is shelflike rib which extends around the inside of the piston at a point just below the drain-holes for the scraper ring. This rib serves as a deflector for oil thrown off at the crankshaft and causes eddies which tend to draw off excess oil from the drain hole outlets. The ring forming the lower end of the piston is thickened slightly at the extreme bottom for additional strength and to provide a pilot for machining. This unit is cast iron of high nickel content which produces a hard tough alloy. Due to the skeleton construction, the weight is considerably less than that of the conventional design.

While the lower or scraper ring is set in a drilled groove of usual design, the upper ring assembly and its groove are unique. The groove is much deeper than ordinary and the top land of the piston is smaller in diameter and bevelled at the top. This arrangement provides room for the segmental ring assembly of L-shaped section. Obviously his assembly is inert and does not load the cylinder wall until pressure accumulating above the piston head tends to expand the segments. Sealing is assisted by the step joints in the segmental assembly. As operation is secured by gas pressure, no spring action is required and this assembly is made of non-ferrous non-scoring alloys rather than the usual cast iron.

Studebaker Adds Big Six Custom Victoria



Studebaker Custom Big Six Victoria

ANOTHER special model known as the Big Six Custom Victoria, seating four passengers and listing at \$1735, is introduced by the Studebaker Corporation of America. The new model is mounted on the 120 in. Big Six chassis.

The interior is of the conventional four passenger coupe type embodying a folding seat for the front passenger and a bucket type seat for the driver. A large compartment behind the driver's seat is provided for parcels in addition to a commodious locker in the rear deck. The upholstery is in Chase

mohair with Broadlace trim while toggle grips and silk shades are provided. The exterior is finished in Croatan green lacquer relieved with an ebony belt. Landau bows are provided over the rear windows.

The line of equipment featuring the other models of the "custom line" are embodied also in the new Victoria, which includes front and rear bumpers, automatic windshield cleaner, rear view mirror, rear traffic signal, dash gasoline gage, dash engine thermometer and co-

The following were among the new items at the A. E. A. show in Chicago:

MOTO-METER SPARK PLUGS

A new thermostatic spark plug is now being produced by the Moto-Meter Co., of Long Island City, N. Y. The distinctive feature of this plug lies in the construction of the ground electrodes. When cold, as it would be in starting the engine, air gap is set for .015 of an inch. This is to facilitate starting, but when the engine warms up the thermostatic action of the metal causes the gap to increase to .030 which is said to give more efficient operation.

NEW AMERICAN BOSCH PRODUCTS

An electrically operated dash gasoline gage is one of the new products being shown by the American Bosch Magneto Corp., Springfield, Mass. This device lists at \$8.50. When the gasoline supply drops to two gallons, the dial is illuminated intermittently and when the supply reaches one gallon, the dial is lighted constantly. Two new horn models, HM-1 and HJ-1, also are being shown.

AMERICAN HAMMERED PISTON RINGS REDUCED

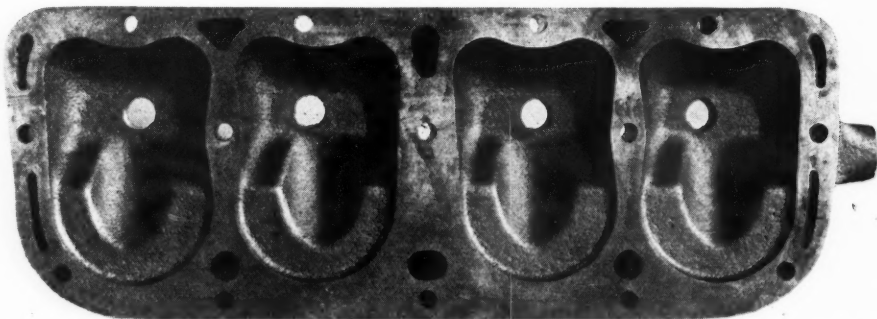
Prices on all sizes, with the exception of the Ford size, of American hammered piston rings have been reduced. From 1½ to 4 in. the cut is 5 cents and from 4½ to 5 in. the reduction is 10 cents. Full protection is given jobbers and dealers on this reduction.

Haibe Hi-Power Cylinder Head

Designed to Give Turbulence

A NEW cylinder head for Ford and Dodge Brothers engines has been placed on the market by the Haibe & Elliott Mfg. Co., of Kansas City.

The new cylinder head is called the Haibe Hi-Power head. It has a dome shaped combustion chamber directly over the valves and a semi-circular channel of a parabolic nature over the pistons and in communication with the dome shaped chamber over the valves. It is claimed that the angle of the sloping walls causes a deflection of the fuel and that this deflection on the compression stroke, causes a high degree of swirling motion, or high turbulence. This is said to completely vaporize the fuel and give more power and eliminate knocks.

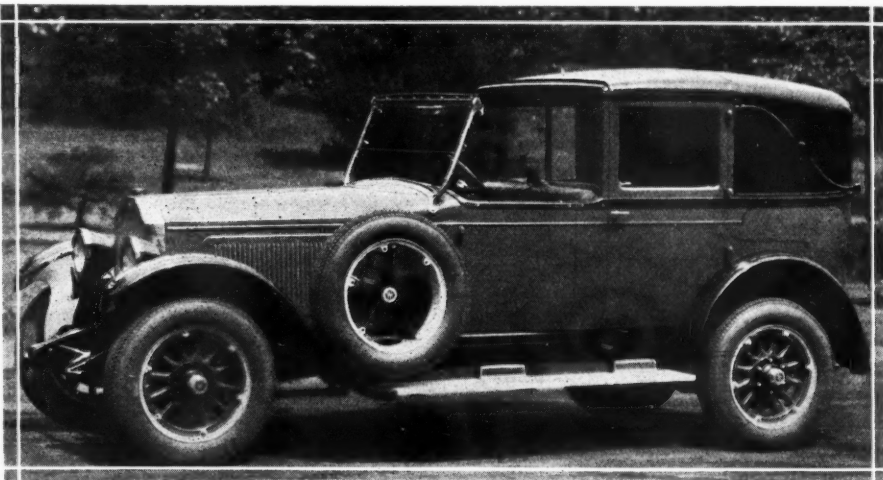


Haibe Hi-Power Cylinder Head

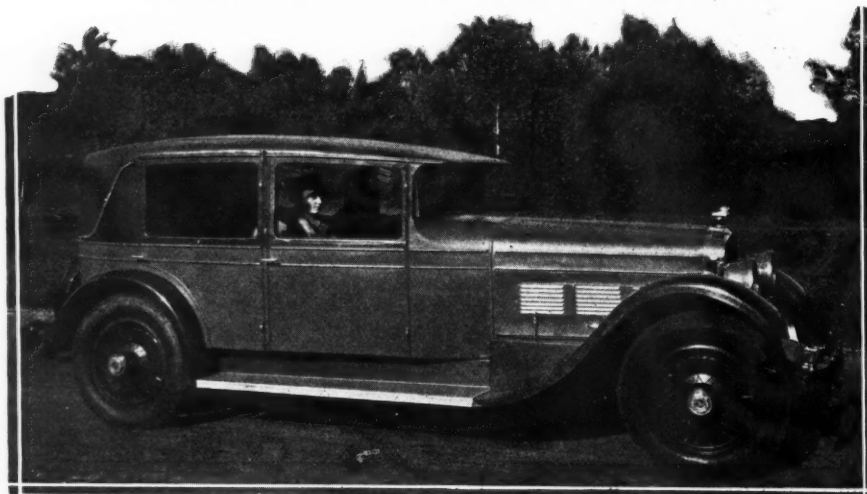
The Haibe heads are made interchangeable with the regular Ford or Dodge Brothers heads. The prices installed are \$20 on the head for Ford engine and \$30 on the head for Dodge Brothers engine.

New Willys-Knight Town Car

A TOWN-CAR listing at \$3950 and marking the highest priced car in the Willys-Overland, Inc., line, is now being offered on the Willys-Knight "66" chassis. Due to the full curve roof with the permanent top and ornamental landau irons the new model presents a European appearance. The finish is in gray with black moulding relieved with ivory striping. Protection for the driver is by a detachable covering while communication is facilitated by a speaking tube. On this model the two spare tires are carried on brackets alongside the two front fenders.



Weymann Custom Bodies for Stutz



Custom built bodies of the Weymann fabric type are now available on the Stutz cars. The Weymann body has been extensively used in Europe. With this type of body the seats are fastened rigidly to the chassis and a light flexible framework carries the body covering. The photograph shows a Stutz sedan with the Weymann body

GLAREGONE MIRRORS

These mirrors are the products of the Hilab Products Co., Indianapolis, Ind., and are said to eliminate glare at night and to provide good vision in daylight. They are made in the single and double types. The former has a 2½x7 in. plate and lists at \$2.25 while the latter has two 2½x4½ in. plates with a retail price of \$3.50. This company also is showing a full line of rubber fan belts, radiator hose and universal joint disks.

LAS-TIK CASING PLASTER ASSORTMENT

This assortment is designed for dealers who cannot handle a large assortment of casing plasters. It contains four 25 cent, four 50 cent, two 75 cent, and two \$1 sizes. The list price is \$6.50. Each plaster is packed in an envelope and the assortment is put up in an attractive display carton. A larger assortment listing \$20 also is available. The manufacturer is the Las-Stik Patch Mfg. Co., Hamilton, O.

The READERS CLEARING HOUSE

Questions And
Answers

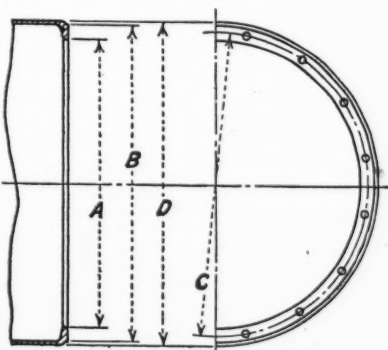


On Dealers
Problems

Counting the Links to Time Valves

Q.—Is 17 and 10 the proper chain setting for a Star four cylinder engine? Why is the same engine marked 9 and 16 links chain setting?—The Brick Garage, Mindennines, Mo.

We understand that 17 and 10 is the correct number of links on one model. To explain this for other MOTOR AGE readers we might point out however,



Size No.	A	B	C	D	Cap-Screws ¹	
					No.	Size
0	25 1/2	28	26 3/4	28 3/4	16	1/4-13
1	20 1/2	21 1/4	20 7/8	21	12	3/8-16
2	17 1/2	19 1/4	18 3/8	19	12	3/8-16
3	16 1/2	17 1/4	16 3/8	17	12	3/8-16
4	14 1/2	15 1/4	14 3/8	15	12	3/8-16
5	12 1/2	14	13 3/8	14	8	3/8-16

S. A. E. Bell housing dimensions

that the crankshaft sprocket has two punch marks on it in the form of the letter "O." The crankshaft should be set so that one of these is down to the right and the other is down to the left. The camshaft sprocket has a similar mark which should be set down to the right and the generator sprocket has a similar mark which should be set down to the left. When the chain is installed you can count the teeth in the chain beginning at the letter "O" on the crankshaft sprocket which is down and to the right. When you count up to the right and get to No. 10 it should be the one in line with the "O" on the camshaft sprocket.

In similar fashion counting up to the left from the letter "O" which is down and to the left on the crankshaft sprocket you should count 17 teeth in getting up to the letter "O" on the generator sprocket. The setting of the generator is not so important but merely makes it a little easier to time the ignition. We do not recommend depending on any such system as this although it helps if you know the system. After installing the chain you should turn the engine over by hand and see that

the exhaust valve closes when piston is practically on dead center. The exact timing is supposed to be one or two degrees late, but this is so little that if you check for exact dead center you will know that the timing is not a tooth wrong. The number of links to count is supposed to be stamped on the engine crankcase at a point adjacent to the chain. If the mark stamped shows 9 and 16, then this is no doubt the number of links that should be used, but in any case we would recommend checking with the piston position after you figure the timing is correct.

NOT ENOUGH HEAT TO HURT

Q.—Does it hurt the lubricating value of engine oils to heat them to the boiling point to drive away gasoline or water that may have worked into the crankcase? How many degrees of heat will these oils stand without doing them any harm?—F. A. Follett, Fremont, Ind.

We do not believe there is any danger of applying so much heat that the lubricating oil in an engine will be damaged. The boiling point of water is 212 deg. Fahrenheit and gasoline will distill out of the oil at a still lower temperature. The flash point of lubricants on the other hand is well above 300 deg. so that it would appear that temperatures even somewhat above the boiling point would do not harm.

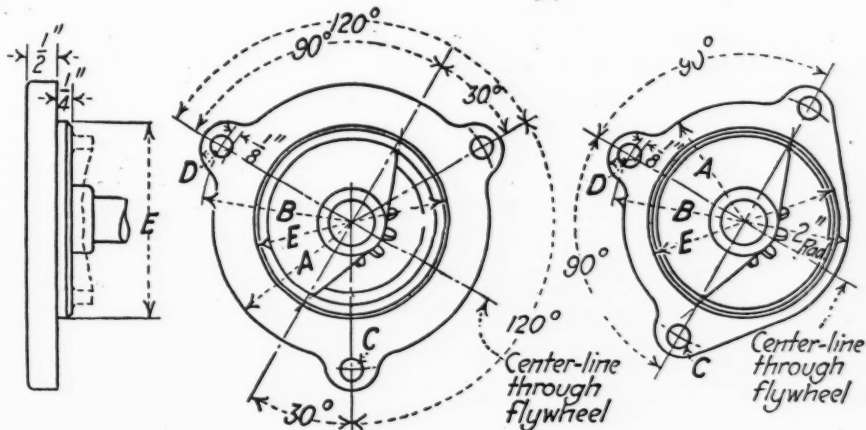


FIG. 1

FIG. 2

FLANGE DIMENSIONS FOR INBOARD AND OUTBOARD INSTALLATIONS

Size No.	Fig. No.	A	B	C	D	E	
						Min.	Max.
1	2	2 3/8	2 1/2	1 1/2	1 1/8	3.496	3.499
2	1	2 1/4	2 3/8	1 1/4	1 1/8	3.621	3.624
3	1	2 1/4	3 1/8	1 1/4	1 3/8	3.621	3.624

All dimensions in inches.

Mountings may be used for either right-hand or left-hand applications.

10/528

S. A. E. starter mounting dimensions

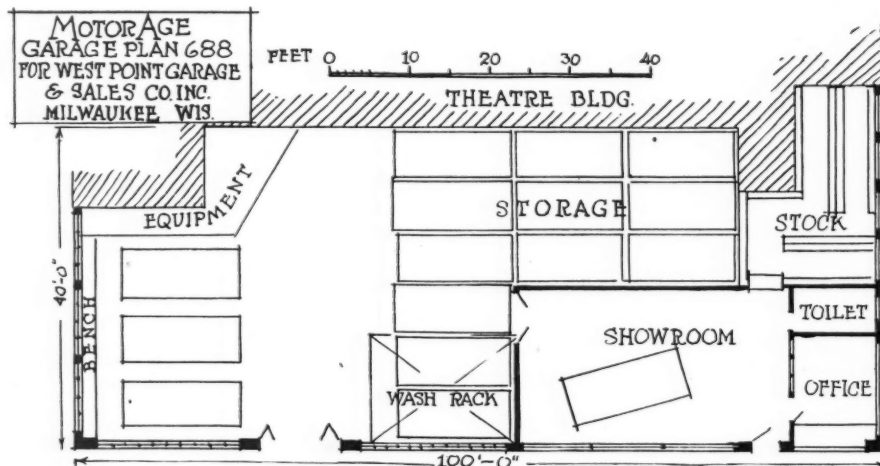
Dimensions of Standard- ized Parts

Q.—If possible would like to have information as to where I could get tables showing S.A.E. measurements, for example a starting motor with No. 2 S.A.E. flange mounting will fit any car with No. S.A.E. flange mounting. But what I want to know is the measurements of these various types of flange. Then on the transmission for example where a No. 2 S.A.E. bell housing might be used or perhaps a No. 1 S.A.E. bell housing. Such information would be helpful in ordering parts for orphan cars.—Central Garage, Hockessin, Del.

To have all of this type of information readily available you should be a member of the Society of Automotive Engineers, for members are supplied with the S.A.E. Handbook which contains all of this data. The Society of Automotive Engineers is giving a great deal of attention to service problems and we would suggest your writing to them in regard to membership.

We are reproducing from the S.A.E. Handbook the two cases you mention, one being the data on starting flange dimensions and the other the data on flywheel housing. These are typical examples of the way various parts of automobiles are being standardized. The address of the Society of Automotive Engineers is 29 West 39th St., New York City.

Planning Your New Building



Storage space for 12 cars in a building of this size is quite unusual. Unfortunately six of the twelve are inaccessible without moving others, but we find this system being used in small garages everywhere and it seems about the only way to utilize the space

By Tom Wilder

Here Is a Man Who Wants to Pay for Motor Age Planning Service

Q.—I am sending you attached to this letter a diagram of a building in which I want to best arrange a showroom for one car, a wash rack, shop for three cars, small stock room, office and get as much storage as possible. I have long been a reader of Motor Age, and have looked at many of your diagrams hoping to find something that would fit the needs, but as this is a rather unusual shape and size of building, I am asking that you give me a layout showing how best I can place these various departments. I would be glad to pay any charges, and you can either send your plans C.O.D. or advise me and I will send the money.—West Point Garage & Sales Co., Inc., Milwaukee, Wis.

While your space is quite limited and cut up to some extent in the back we have arranged for all the items that you mention in your letter. There is space for three cars in repair, the showroom is large enough for two cars instead of one, there is a very good sized stock room and an office.

It would not be advisable to build a wall at the side of the wash rack on account of the scant space for the 6 cars in storage, but we would suggest a canvas curtain which could be dropped down when the wash rack was in use to keep from splashing the car in storage next to it. A curtain of this sort is quite effective as illustrated in the curtain of a shower bath.

The space for equipment is not very extensive in area but is spread out pretty well and can be utilized to fairly good advantage, furnishing space for a number of pieces of equipment. The storage capacity while large is, we admit, not very well arranged, but by reserving the back spaces for dead storage and for those cars leaving late in the morning very little trouble will be experienced.

We have utilized the small space at the side of the theatre chimney for stockroom as it is not adapted for anything else, but is quite suitable for this purpose. It is unfortunate that mechanics will have to cross the showroom to get parts, but concessions have to be made in small places of this sort.

We are assuming that the walls at the sides of the building are outside walls in which windows can be installed but if this is not the case the shop at least, will need a skylight in the back part. One skylight in the back or even two would be good in any case.

If the office side is on an alley the plan might well be reversed in position to benefit the shop.

READERS CLEARING HOUSE

LEGAL QUESTIONS ANSWERED

By Wellington Gustin

MORTGAGE ON CARS IN STORAGE

Q.—We have an automobile dealer for whom we are financing automobiles by taking his note and mortgage on the cars. The mortgage is recorded. Said dealer has a judgment against him which has been abstracted and holder of judgment has run an attachment against our automobiles. His interest in the cars has been sold by the sheriff and automobiles bought by the holder of judgment.

The lawyers representing holder of judgment claim that our mortgage is of no value, as the cars were subject to sale. Our understanding with the dealer was that cars should be kept in storage until paid for. Some lawyers claim that we have a good mortgage and are entitled to the amount of our mortgage, while others claim that our mortgage is void. We will appreciate your advice in this matter as we will have the case in court in a few days in an endeavor to recover the amount of our note and mortgage. If you know of any cases, exactly like ours under the Texas laws, we will be glad to pay a nominal price for the names and numbers of some cases and just where we can instruct our lawyers to find them.

We are advised by our lawyers that when cars were sold our mortgage had to be paid by the purchaser, and therefore we did not bid on the cars ourselves and they were sold by the sheriff for about one-third of their value, as purchaser thought he would have to take care of our mortgage. Now he is taking the stand that our mortgage is void. Under that condition he has purchased the cars at a far below normal price and we have no way of recovering our cars and you can readily see we are up against a proposition of trying to make the purchaser take care of our mortgage.—Houston, Texas.

You have a statute down in Texas,

No. 4000, of the Civil Statutes, which renders chattel mortgages void, when given to cover merchandise daily offered for sale. Under this section your supreme court has held that automobiles kept for sale by the dealer (mortgagor) are goods, wares and merchandise within the meaning of the statute. Therefore, if a mortgage on such cars is void, it does not exist, and is valueless against creditors or third parties.

There may be some angles to this case you have not presented. The court has passed upon the secret agreement as to control of the property, holding secret agreements are not binding on third parties or creditors. Knowledge of conditions in front of your contestants might aid your case. But the rule of law and decisions on it appear against you.

One of the early cases on this statute above named is J. I. Case Threshing Machine Co. vs. Lipper, 181 Southwestern Reporter. Later cases which hold that automobiles offered for sale by dealers are merchandise within the statute, and mortgages given to cover them while being offered for sale, are void, are:

1. City National Bank, et al. vs. Morgan, 267 Southwestern Reporter, 1078.
2. First National Bank of Stephenville vs. Thompson, et al., 265 Southwestern Reporter 884.

Answers to Readers' Questions

Checking Front Wheels on Ford Car

Q. Can you tell me what makes a Ford shimmy? I have checked everything and it seems to be just right, but cannot overcome the shimmy. It only shows up at speeds from 10 to 15 miles per hour and when you go over that it steers perfectly.—J. W. Pekas, Dante, S. D.

Illustrations showing the three dimensions to check on a Ford car were published in the October 29th, 1925, issue of *MOTOR AGE* and if you keep a file of the back issues you can refer to these illustrations. One thing to check is the slant of the front axle. The king pins should slant back at the top. One way of checking this is to use a carpenter's square resting on the floor in front of the car, with the vertical portion against the I beam of the front axle. When the square touches the bottom of the I-beam there should be a $\frac{1}{8}$ in. space between the square and the upper part of the I-beam. The toe-in of the front wheels should be $\frac{1}{8}$ in. measured at the fellowe.

The cambre of the front wheels should be such that the distance between the lower part of the fellowe is 3 in. less than the measurements taken at the top of the wheel. If these dimensions are not right it means that the steering knuckles are bent. If the car has balloon tires it is essential to balance up the wheels, that is, to counterweight them so that when jacked up they do not tend to settle in any particular position. The tightness of the bushings in the spindles is a vital factor in front wheel shimmy. If the wheels turn very easily, there is more tendency for them to shimmy than if there is just a little friction in the rotation about the king pin.

STOPPING RADIATOR LEAKS

Q.—I once saw water glass recommended as a remedy for small leaks in radiators. Water glass should not be used if there is any alcohol in the radiator as it hardens into a thick gum as soon as it comes in contact with alcohol. It should be used in a radiator only with pure water until the leaks are stopped and then the radiator should be flushed out with clean water before alcohol is used.—John D. Green, R. R. No. 2, Spring Lake, Mich.

This is an interesting opinion which of course can be checked up by anyone who wishes to try putting water glass into a radiator. We have seen a Ford car which operated all one winter and into which water glass was poured while the radiator contained a mixture of alcohol and water and no harmful results were observed as far as stopping up the circulation is concerned. In fact the car was used all that winter

and the following summer and was run without any fan belt. It is possible that there is a difference in putting water glass into alcohol as compared with putting water glass into a mixture of alcohol and water.

TO PREVENT FREEZING

Q.—Advise if it is harmful to the engine to use about 3 oz. of glycerine in the crankcase to prevent water which collects in the oil from freezing.—Lake Region Motor Co., Brainerd, Minn.

When glycerine gets very hot it burns about the way sugar burns when put on a hot stove. For this reason we would hesitate to recommend glycerine. We have known cases where about half a cup of alcohol was put in the crankcase to accomplish the same results and reports seem to indicate that no harm was done. Lubrication engineers, however, usually prefer to have the oil drained frequently rather than recommend either alcohol or glycerine. Alcohol is said to contain or produce an acid which tends to attack the polished surfaces of the bearings.

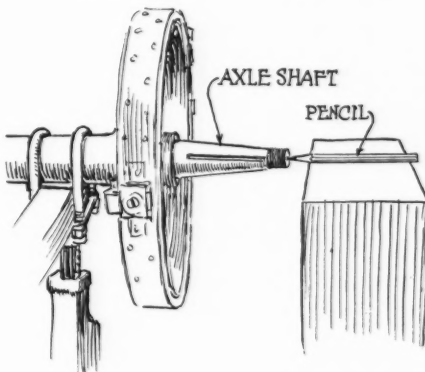
SHOP KINKS

IDEAS

That have been Found Useful

CHECKING BENT AXLE

To test axle shaft for bend remove wheel and set a block near end of axle. Place pencil or pointed rod on block and use a jack to raise axle to desired height so that pencil is in line with the center of hole at end of axle shaft. Revolve shaft at different speeds and watch pencil to detect bend in shaft.—R. G. Dasse, 35 N. Union St., Burlington, Vt.



Readers of MOTOR AGE are invited to submit ideas that they have found useful in doing some particular service job in the shop in a better or quicker way. For each one published \$2.00 will be paid. Whenever possible the idea should be accompanied by a sketch or diagram from which a drawing can be made.

Rebuilding Engine to Use in Motor Boat

Q.—I am converting an F. B. Chevrolet engine, 3 11/16 by 5 1/4 in. for marine use. I am endeavoring to get all the power possible from this engine at from 2200 to 2400 R.P.M. I have enlarged the valve ports to take Fordson tractor valves. Could you suggest proper size carburetor for this job? I am going to rebore the engine to 3 13/16 bore and install oversize alloy pistons equipped with Chevrolet piston pin. When the pistons are at upper dead center they come within 1 1/2 in. of the top of the block. How much, if any, should I plane from the top of the block to safely increase compression without knocking?—Frank Meyer, Dowagiac, Mich.

In increasing the power available from this engine and in mounting it in a motor boat where it will develop full power, practically all the time it is operating, you will have to watch that you do not overload the bearings. The ordinary usage of an automobile takes into consideration the fact that only at rare intervals is the full power of the engine required, and at other times only a small fraction is used or the car is coasting and no power is being used. For this reason a tractor engine usually works out better in a motor boat than does a light high speed engine taken from an automobile.

In the matter of carburetion would suggest your getting in touch with some authorized carburetor service station and checking up with their chart. A casual consideration of the size engine would seem to indicate that a 1 1/4 in. carburetor would be about right, but carburetion is often a matter of experiment so that you may find it advisable to try different types or sizes. The compression can be increased if you wish to use special fuel. If you use the regular gasoline you may find that even a slight increase in compression will cause a knock, especially since the engine operates at full load most of the time. We sometimes recommend removing $\frac{1}{16}$ in. and later an additional $\frac{1}{32}$ in. if the first increase in compression does not cause a knock. If a knock is produced then an extra cylinder head gasket is needed in order to relieve the compression somewhat.

VULCANIZE IT ON

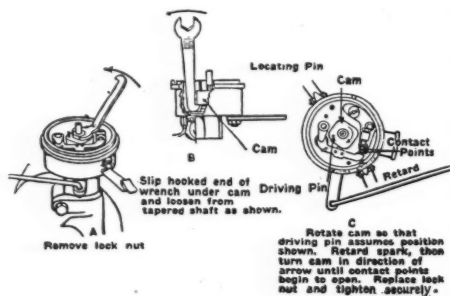
In the Oct. 14, 1926, issue of *MOTOR AGE* there was a shop kink by Luther H. Maxwell, Jr., in regard to putting an air hose on a pipe fitting. In doing this job I grind two small grooves around the pipe and then heat it until it will sear the rubber in the hose. When inserted at this heat the rubber vulcanizes with the pipe making it unnecessary to even use a clamp.—Amzy Mintonye, Amzy's Auto Service, Marshfield, Ore.

Clearing up Electrical Troubles

More Spark Advance for Higher Speed

Q.—We have a model K Chevrolet car which will only do 45 or 50 miles per hour. The owner of the car does not care to drive it more than 35 but feels that it should have a little greater maximum speed and perhaps a little better pick-up.—Chevrolet Questioner.

We would suggest your checking up on the timing of the ignition and possibly advancing it slightly to get a little greater maximum speed. To retime the ignition turn the engine over with the starting crank until the intake valve in the No. 1 cylinder has opened and closed. Then remove spark plug in that cylinder and insert a screw driver or rod so as to feel the position of the piston. Turn crank until piston has traveled to its uppermost position. The piston is now on firing dead center. Retard the spark as far as it will go. Loosen lock nut and raise distributor



Timing Chevrolet Ignition

cam as shown in sketch A of the illustration. Next turn the cam on the distributor so that the driving pin assumes the position shown in sketch B of the illustration and distributor arm is directly under wire leading to No. 1 cylinder; then turn the cam in the direction of arrow until the two contact points begin to open.

The lock nut can then be tightened against the cam; however, in doing this, use care not to disturb the position of the cam. The distributor arm and cap can now be put in place and the car operated. On the rim of the distributor cap is a small slot which should fit over the locating pin on the rim of the distributor body. As each of the spark plug wires is of proper length, no trouble should be experienced in attaching them to their respective spark plugs.

No. 1 wire is the one immediately above the small slot on the edge of the distributor case. This slot fits over the locating pin on the rim of the distributor body. The rotation of the distributor is clockwise. This means that the second wire to the right or

Edited By A. H. Packer

clockwise is the No. 2, then comes No. 4 and lastly No. 3.

Illustration and instructions taken from Chevrolet Repair Manual.

SHOCKS FROM A "DEAD" WIRE

Q.—Will you state if it is possible for the current induced in one spark plug wire adjacent to another to have sufficient voltage to jump an ordinary plug gap (say .025 to .028 in.)?—George A. Mount, c/o E. F. Linkenbach, Port Washington, N. Y.

We believe it is possible for a current to jump at the wrong plug if wires run close to each other for perhaps 4 ft. or more. In this connection we must remember that the only cylinder under compression is the one that is supposed to fire. This means that the voltage in a wire which is parallel with a high tension wire receiving current from the secondary winding of the coil does not have to be very great, for the spark plug to which it is connected is in a cylinder which is not under compression. We often see high tension wiring where the spark plug wires are carefully laid parallel and next to each other. This makes a neat appearance but does have the tendency to produce faint sparks in the cylinders which are not firing. Running all wires together through a steel or iron pipe or conduit theoretically increases the tendency for the spark to jump at the wrong plug due to induction. You can make an experiment along these lines by having two high tension wires parallel to each other on a test bench and one connected up to an ignition coil. You will get a good shock by touching the two ends of the wire which is apparently dead.

WANTS STARTER TO RUN ON 110 VOLTS

Q.—Is it possible to wire up a 6 or 12 volt starting motor to 110 volt alternating current to make a motor of it? We have a number of starting motors around the garage and would like to fix them up for the purpose of running buffer, emery wheel, and the like. What would be necessary in order to do this?—Wm. Knight, Anselmo, Nebr.

While it would be possible to wire up the starting motor for the service which you suggest it is very impractical. The reason for this is that all of the wiring would have to be removed from the starting motor and the entire machine rewound. The cost of such a job is generally more than the entire cost of a small electric motor of similar size that is designed to run on 110 volts and which generally proves much more satisfactory. So as a matter of economy and satisfaction we would suggest that you do not attempt to make over starting motors for use on 110 volts.

Lack of Current Fundamentals a Big Handicap

Q.—I want to convert 110 volt A. C. current into direct current and then run the direct current through a transformer and change it into a current having about the same voltage and amperes as have magnetos such as Bosch and Splittorf high tension magnetos. What capacity rectifier should I buy and what size and length of wire is necessary to make a transformer? I want to get a motor strong enough to drive the magnetos at various speeds and want to know the correct size. After converting the A. C. current into D. C. I want to use it for charging magnetos. How many feet and what size wire is best to use.—Nebraska Repairshop.

We cannot answer the questions exactly as you have asked them for there are a number of suggestions you have made which are rather impracticable. Alternating current can be changed into direct current by using a motor generator but direct current cannot be used with a transformer. We would suggest your reading some good book on electrical systems on automobiles in order to get some of the fundamental points which you will need in work of this kind. If you do not have a good understanding of the action of direct and alternating current you will be handicapped in your repair work.

For testing magnetos at various speeds you should have a motor of at least one-half horse power. The difficulty in buying just any alternating current motor is that you have no method of regulating the speed. Speed regulation is difficult to get but is successfully attained in a number of electrical test benches which are on the market. If you have one of these you can not only test magnetos but you can also test generators. For recharging magnets you should have a magnet charger which operates on a 6 volt battery. Then you should have either a rectifier or a motor generator set to charge batteries. If you communicate with advertisers in MOTOR AGE you will doubtless get all the information you need on the equipment referred to.

PREVENTS POINTS CLOSING

Q.—I notice on page 28 of the September 9, 1926, issue of MOTOR AGE where "Nebraska Reader" has been having trouble with his Dodge Brothers generator blowing fuses. I wish to suggest that he repair the ground wire leading from the starter switch. On the older cars this wire grounded to a bracket in back of the horn and vacuum tank. On later models it was attached at the transmission. I think this will stop his fuse trouble.—E. F. Meador Service Co., Danville, Va.

New Products at the N.S.P.A. Show

PIONEER MOTOR BEARING COMPANY PRODUCTS

An unusually complete line of connecting rod bolts and nuts has just been added to the products manufactured by the Pioneer Motor Bearing Co., of 800 Van Ness Ave., San Francisco, Cal. This set contains a total of 43 different kinds of bolts and 25 different kinds of nuts which is sufficient to service practically all kinds of engines. In all there are 600 bolts and 396 nuts conveniently stored in a substantial wall rack. The price for this assortment is \$130. No extra charge is made for the cabinet.

Another new item in the Pioneer line is their Steer-eze shims. This is designed to be used on the front axle of different makes of cars in order to give the proper tilt or caster to the axle and thus give the proper angle for easy steering. The regular list price is \$1.50 a set for passenger cars. Truck sizes are \$2.25. The Chevrolet set sells at 75 cents. Each individual shim is plainly marked and a carton contains one pair.

RAJAH BRASS SPARK PLUG

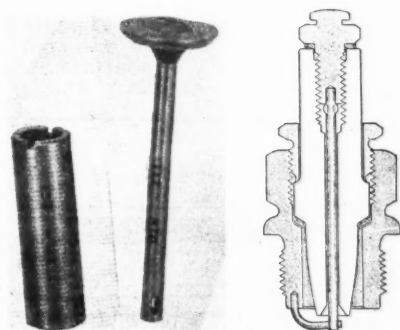
A new spark plug with a brass shell is being produced by the Rajah Company (formerly the Rajah Auto Supply Co.), of Bloomfield, N. J. The construction of this plug is rather conventional except for the material of the shell and that of the center electrode. This electrode is made of Nichrome wire instead of nickel wire. It is pointed out that the brass construction is of a special value in tractor and marine engines where it insures against the plugs being rusted or frozen to the cylinder. The price is \$1.00.

CHANGES IN TRINDL PRODUCTS

To satisfy an increased number of calls for cast iron head valves the Trindl Co., 2917 S. Wabash Ave., Chicago, has added cast head valves to its line.

The piston pins produced by the Trindl Co., are now finished by the lapping process instead of the former grinding method.

Waterliet Reamer with blades at angle to axis



New Trindl piston pin and valve

Sectional view of Rajah brass spark plug

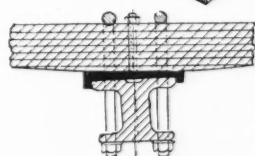
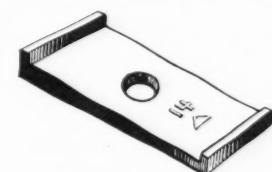
Herewith are descriptions of new automotive products exhibited at the Second National Standard Parts Association Show in Chicago, Nov. 15 to 19.

EVEN-KEELS

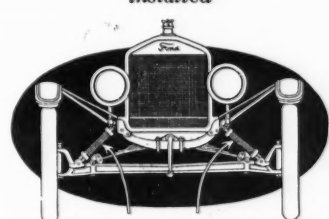
Even-Keels is the name given to a device for Ford cars made by the Accurate Gear Co., Springfield, Ohio. This device includes two coil springs which operate to reduce side sway of the front end of the Ford car when rounding a curve or striking obstructions in the road. The device is also said to check rebound and improve riding qualities. The price is \$7.35 a set.

KNIGHT ENGINE SLEEVES

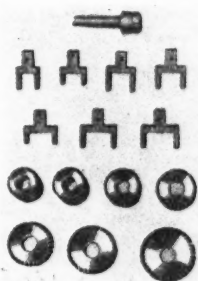
An addition to the products of the Swartz Mfg. Co., Freeport, Ill., is a new line of cylinder sleeves for Knight engines.



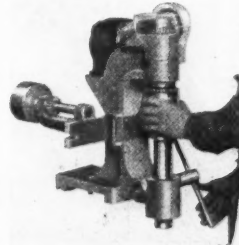
The New Pioneer Steer-Eze Shims showing how they are installed



Even-Keels, a coil spring device for Fords



Dall adapters



Dall Chamfering Machine preparing a piston for machining

DALL PISTON MACHINING EQUIPMENT

Chamfering the inside of the skirt of pistons is now a simple matter with the Dall chamfering machine built by the Dall Motor Parts Co., Cleveland, Ohio. This machine comes with four different sizes of chamfering reamers which will take anything up to and including a diameter of 5 1/4 in. It is also possible to obtain this machine with a geared down chuck which is suitable for driving reamers. The list price complete with chuck and individual motor is \$185. The machine without the reaming chuck is \$145. The machine with the reaming chuck and without the motor is also \$145. The reaming machine only for line shaft drive is \$95.

For holding pistons conveniently in a lathe a set of adapters has also been brought out. These adapters consist of seven different size faces and seven driving dogs which make it possible to handle any piston up to and including 5 1/4 in. in diameter.

NEW ZIP ABRASIVE COMPANY PRODUCT

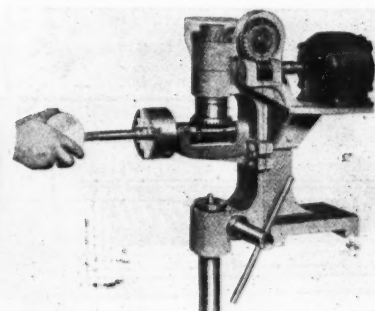
Zip oil, a penetrating lubricant is the latest addition to the line of products put up by The Zip Abrasive Co., Cleveland, O. This penetrating oil comes in a very stout can and has a needle valve at the top of it. The oil is under 40 lbs. of air pressure and can be accurately squirted on springs or other parts by merely opening the needle valve. This item lists at \$1.00.

IMPROVEMENTS IN WATERLIET TOOLS

A lock nut has been added to the expansion screw of the spiral expansion reamers produced by the Waterliet Tool Co., Inc., Albany, N. Y. This lock nut prevents excessive expansion of the reamer and consequently protects the tool from damage. In the Critchley pattern reamers the blades are set at a slight angle to the axis of the reamer. This gives a very desirable shearing action and consequently the cut is made with less likelihood of chattering.



Lock Nut on Expansion Screw of Waterliet Reamer



Dall Reaming Fixture in use on their new chamfering machine

New Products at the Shows

The following new products were displayed at the Automotive Accessories Association show at the Armory in Chicago Nov. 8 to 15:

NEW FREMONT MANUFACTURING COMPANY VISORS

Three new side visors for closed cars are being offered by the Fremont Mfg. Co., of Fremont, Ohio. The first is of leatherette construction and is carried on a hinged rod that is screwed to the inside of the car at the top of the window where the shade is desired. A spring on the hinged rod causes the visor to either remain tight against the ceiling of the car or if the window is open the visor can be swung out to its regular position. The ease with which this visor can be put into place or removed is its outstanding feature. In 18 to 24 in. length the list is \$3.35 each and in 26 to 32 in. the list is \$3.90 each.

Another visor is the all-metal type which is screwed permanently to the outside of the car. Due to the closed end this visor gives particularly good protection against snow or rain and yet makes it possible to have adequate ventilation in the car. These come in baked enamel and list at \$1.25 each.

A striped awning type visor on a spring steel wire base completes the line. Due to the spring construction of the frame this visor can be readily snapped into place in the glass groove when the window is lowered. This comes in five sizes listing at \$2.25, for any one size.

MOLL TUBE VULCANIZER

The new Moll electric-steam tube vulcanizer is very fast in its operation. The plate is heated by steam electrically generated. Special eccentric clamps used in conjunction with polished aluminum plates combine the speed and contact that results in fast and satisfactory work. These machines list at \$37.50 for the three clamp size, \$57.50 for the five clamp size and \$75 for the seven clamp vulcanizer. The Moll Mfg. Co. is located at Denver, Colo.

NEW BOG SOCKET WRENCH SET

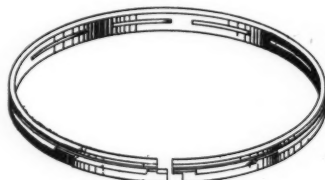
A most complete mechanic's socket wrench set is now being manufactured and marketed by the Bog Mfg. Co., Chicago. This is known as their Master Socket Set No. 949 and lists at \$17. In addition to the conventional speeder handle, universal and the like there is a combination "T" and "L" handle of unique design. The set includes 19 hexagonal sockets and 8 square sockets. The entire kit is packed in a suitable steel box.

SPEEDWAY BRAKE RELINER

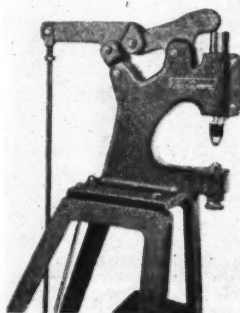
Faster and more economical brake relining is claimed for the Speedway brake relining machine, which is manufactured by the Speedway Mechanic Co., of Canton, Ohio. This machine does not make use of an electric motor. The single operation of the pedal does the punching, counter-sinking and riveting. The tubular rivet is forced through the brake lining, cutting its own hole. The punching compresses the lining material into the sides of the rivet thus reinforcing it. An adjustable counter-sink insures full depth and clearance of these rivets. Due to the compound leverage in this machine one can readily exert a 2,000 lb. riveting force. The list price is \$69.

LUTHY PISTON RINGS

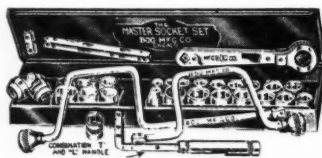
Another piston ring has been added to the line of rings manufactured by the F. A. Luthy Co., Jackson, Mich. This new ring is designated as their oil control ring and lists at 40 cents. At the center of the outer surface of this ring, grooves are ground at intervals for the purpose of collecting oil.



Luthy Oil Control Ring



Speedway Brake Relining Machine



New Bog Socket Wrench Set

The oil is passed to the back of the ring through milled passages.

PEERLESS BRUSHING LACQUER

Produced originally for the car owner, the new Peerless brushing lacquer is now being offered to car dealers and paint shops by the Columbus Varnish Co., Columbus, Ohio. While this lacquer is fast drying, being ready for use in 30 minutes after the coat has been applied, it possessed the desirable faculty of quick leveling so that brush marks do not show. This lacquer also can be applied by means of the air brush method. It is available in 14 colors and clear and lists at \$2.20 a quart and \$8.25 a gallon.

Among the new products exhibited at the N. S. P. A. show in Chicago were the following:

NEW BURD OIL RING

A new oil scraping piston ring is being produced by the Burd High Compression Ring Co., Rockford, Ill. This piston ring is beveled at the upper corner so as to slide over the oil film and permit adequate lubrication of the cylinder wall. The lower outer corner of the ring is recessed so as to provide an annular groove to collect the oil. Slots through the ring at the upper corner of this recessed portion allow the oil that is collected to work in behind the ring where holes through the piston permit it to flow back to the crankcase. The ring lists at 60 cents.

HEAVY DUTY BRAKE LINING MACHINE

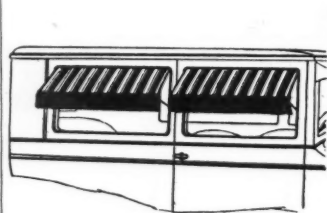
The Multibestos Co., Walpole, Mass., has developed a heavy duty brake lining machine for service on buses and trucks. The jaws of the machine have greater depth and greater width than on previous models and in the assortment of tools provided there are extra long punches and riveting tools to get in between the webs of heavy duty brake shoes.

MOLYBDENUM STEEL USED

An improvement in construction of Fafnir bearings is reported by the Fafnir Bearing Co., New Britain, Conn., due to the fact that Molybdenum steel is now used in all parts of the bearing where formerly it was used only in the balls.

NEW LINE OF BEARINGS

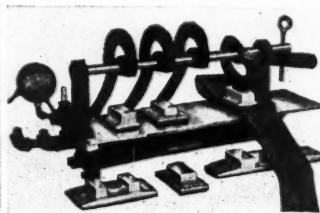
A new line of ball bearings has been added to the products of the McGill Metal Co., Valparaiso, Ind. This concern has for many years been making die castings and now is prepared to make and supply ball bearings in all standard sizes.



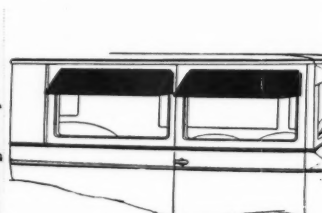
The Fremont Side Awnings



Fremont Adjustable Visor



Improved Moll Tube Vulcanizer



All Metal Visor

EDITORIAL

Some Things to Sell

Spark Plugs

MANY car owners believe that as long as a spark plug fires it is as good as a spark plug can be. In this they are greatly in error. Mr. F. E. Edwards, formerly chairman of the technical committee of the American Automobile Association and now operator of an automotive testing laboratory, is authority for the statement that in many cases a new set of spark plugs, without any other changes, will actually enable the automobile engine to register an increase of horsepower output.

There is more than just the desire to sell more spark plugs behind the recommendation of manufacturers that a new set of plugs should be installed at least once a year. A new set of spark plugs, even for an eight cylinder engine, is comparatively inexpensive and should be resorted to in any case of faulty engine operation if the old plugs have been in regular service for a year or longer.

The good dealer who will conscientiously recommend new spark plugs at the right time will increase the profitable volume of his business while doing his customers a good turn.

Thanksgiving Day

WE hope that all the readers of MOTOR AGE have reason to be thankful. We know that in many respects the automotive industry has had a good year. Many dealers and garages have made money. Some have not. If those who have not made money have made progress in learning the reason for their failure to profit they have an outstanding reason to be thankful. Having learned the reason for their past failure they are well prepared to enter anew into an active and intelligently directed campaign to build up a profitable business.

Always Something New

WE have commented before on the dynamic nature of the automotive industry—on the fact that it is always progressing. In general there are two periods of the year when this progress is most noticeable, although it is taking place constantly. It has become the practice of a number of manufacturers to introduce new models in midsummer and the offerings made annually at that time always are worthy of note. The other period of focused interest on new products is the time of the national shows.

This year, although fewer makes of cars will be exhibited, we are promised an unusually large number of new or improved motor vehicles. It is definitely stated that the Erskine Six made by Studebaker will be at the shows. We may expect also to see the new "Little Marmon." The smaller eights of Gardner, Auburn and Elcar are already scheduled for early production. There is a new small six with a well known name in prospect, and there is good reason to expect

smaller editions of at least two of the well known cars in the higher price group. Show time will find production well under way on the smaller Velie that was recently described in MOTOR AGE.

Still another development under way is the new Knight engined car that will be produced in Detroit by a new organization in which some former Dodge officials are closely associated with John N. Willys. This car probably will not be ready at show time, but it is promised for early spring. It is about time, too, that the Argyll single sleeve valve engine of Continental Motors be embodied in production. It will be interesting to see whether or not this development reaches the market before or after the advent of the new Knight engined product, which it is said will be in the \$1,000 class.

There is a lot to look forward to in the way of new developments in the coming months.

About Installment Selling

ELSEWHERE in this issue of MOTOR AGE is published a tabulation based on a survey of time payment sales made by the National Association of Finance Companies. Several outstanding facts revealed by this survey are commented upon in a separate article.

Here we merely want to call attention particularly to the fact that the hazard in the sale of used cars on time has been increasing at a noticeable, if not alarming, rate. This probably has been due to declining values of used cars. The present outlook for the industry indicates developments around show time that will still further contribute to the reduction of used car values. It is more important than ever before that the dealer guard against paying too high a price for used cars. The dealer should remember that there is not the remotest possibility that the used car will increase in intrinsic value in his hands, but that it most certainly will steadily decline as time passes.

Keeping these facts in mind, it is important to sell used cars on sound terms. Insignificant down payments and long terms on used cars invite repossessions and repossession play havoc with the regular trade.

Attend These Meetings

AN interesting and meaty series of merchandising meetings is being conducted in different cities by the National Automobile Dealers' Association and local dealer bodies. Attendance at these gatherings so far has been highly gratifying and tradesmen who have been present carried away some good information.

Dealers who are fortunate in having these sessions of the N. A. D. A. "Dealer Profit Institute" scheduled for their home towns will make no mistake by doing all possible to work up a good attendance.

Urge the salesmanagers and salesmen to be on hand. They will learn something.

EXPECT LOWER PRODUCTION

Inventories and Plant Changes Now the Order

Factories Are Being Prepared for Merchandising Efforts of 1927

NEW YORK, Nov. 24.—As several large automobile manufacturers are scheduled to take inventory and others to make plant changes of one kind or the other between now and the first of the year production is likely to be lower. This is the time of year when factories are being made ready for the new year in merchandising of automotive products. Sales are seasonally slack in most parts of the country.

Southern demand which to a slight extent supports the winter market for motor vehicles is below par just now, a condition which was generally expected.

More different lines of cars are to be on the market next year than this. Besides the addition of products in various price classes to give dealers a rounded line there will be more color combinations available to meet what is probably the strongest element in popular demand. These additions and the diversification of color have increased manufacturing costs and contributed in some instances to the lower margin of profit revealed in earnings statements. Items of equipment added during the year for the purpose of securing smoother and more economical operation have also added to costs but as a partial counterbalance there has been a decline in the cost of some materials and some equipment.

Quinlan in New Field

CHICAGO, Nov. 20.—John H. Quinlan, formerly distributor of Moon cars in Chicago and now a member of the New York and Chicago stock exchanges, has announced his association with Thomson & McKinnon of Chicago as a specialist in motor stocks.

Groom Fuller for Presidency

BOSTON, Nov. 22.—In Massachusetts they are talking of sending Gov. Alvan Fuller, automobile dealer, to the presidency via the vice-presidency. The suggestion is that President Coolidge may be ready to retire to private life at the end of his term and that the Republican party will then nominate a middle western man for president. In that case an eastern man would be the logical choice for vice-president.

Because of the extraordinarily large vote given Gov. Fuller this year for reelection he is regarded as one of the strongest men in public life in the country. While Senator Butler, with President Coolidge's active help was

defeated with a vote of 469,295, Gov. Fuller was reelected on the Republican ticket with a vote of 597,425. This fact is significant, his friends say. Gov. Fuller for many years has been the Packard distributor in eastern New England.

700 at Sales Meeting

CHICAGO, Nov. 20.—More than 700 dealers, salesmen and salesmanagers gathered at the Sherman hotel last night to hear the message of Edward Payton, merchandising specialist of the National Automobile Dealers Association. The meeting was one of the campaign designated as a "Dealer Profit Institute" which is being conducted nationally by the N. A. D. A. in co-operation with local associations. The Chicago meeting was staged jointly by the N. A. D. A. and the Chicago Automobile Trade Association. Mr. Payton gave his audience some sound merchandising suggestions, stressing especially the importance of knowing costs.

All Forces in Worcester

WORCESTER, Mass., Nov. 20.—Consolidation of Stevens & Company and Walden-Worcester, Inc., which was consummated last August has been followed by the joining of physical forces by these two former individual concerns. The consolidated organization now operates under the name of Stevens Walden-Worcester, Inc., with a plant in the suburbs of Worcester. Stevens & Company has vacated its quarters in New York City and moved to Worcester and shipments of "Speed-up" tools will hereafter be made from the Worcester plant. The export division of the consolidated companies remains in New York at 375 Broadway.

Make Cotton Relief Offer

SOUTH BEND, Ind., Nov. 20.—For every Studebaker sold in the South during November and December, the Studebaker Corporation will buy one bale of cotton, it is announced. Cotton will be purchased at market price, stored and kept off the market for at least six months. Studebaker expects to sell between three and five thousand cars in South and investment in cotton will be between \$150,000 and \$250,000.

Indianapolis Weymann Plant Soon Starts Grind

First of European Type Light Bodies to Be for Show Purposes

INDIANAPOLIS, Nov. 20.—Under direction of the new organization's president, B. W. Twyman, the Weymann American Body Company, with a plant to be maintained in one of the former factory buildings of the National Motor Car Company here, is preparing for actual manufacturing. First output will be for show purposes.

The plant will make the Weymann European type light bodies for closed cars on special order, and will ultimately license other body makers and motor car manufacturers to make this patented type of fabric body as is done in Europe by the parent company.

While the Indianapolis body company is an independent concern, three of the directors of the new company are officials and directors of the European Weymann body concern. The three Europeans in the directorate of the new company are C. G. Weymann, president of the European Weymann establishments; Maurice Dolphus, also indentified with the European firm, and H. Steinbrugge, who has been indentified with the parent concern from its start. Mr. Steinbrugge is vice-president of the local company. W. H. Colvin, Jr., treasurer, also a director, as is Twyman, president.

Discuss Plans for 1927

CHICAGO, Nov. 20.—The Cork Sealed Piston Ring Company which has its factory in Denver and general offices in Chicago held a convention here this week which was attended by practically all of its distributors and road men in the United States and its Canadian distributor. Sales and merchandising policies for 1927 were discussed and there was a banquet at the Illinois Athletic Club Wednesday night.

The meeting was conducted by A. A. Wester, of Denver, president of the company and G. A. Wester, of Chicago, vice-president.

New Models in MOTOR AGE Prices and Weights Tables November 25th

Make	Model	Body Style	Old Price	New Price
Gardner	80	Roadster	New Model	\$1395
Gardner	80	Sedan	New Model	1695
Gardner	90	Roadster	New Model	1995
Gardner	90	Brougham	New Model	2295
Gardner	90	Sedan	New Model	2295
Gardner	90	Victoria	New Model	2295

Expect Heavy Call for Louisville Show Space

Good Business Outlook for 1927 Is Reflected in Ex- hibition Interest

LOUISVILLE, Ky., Nov. 20.—Members of the Louisville Automobile Dealers Association, Dec. 15, will select space for their exhibits in the coming automobile show at a meeting to be held in the headquarters of the association.

The 1927 Automobile Show, which is to be staged in the Jefferson County Armory, Feb. 14-19, will be the nineteenth annual exhibit held under the auspices of the association.

According to present indications, space in the coming show will be in greater demand than in previous years. Due to the fact that dealers generally are optimistic over the business prospects for 1927, and as the automobile business during the present year has been above the average, show officials anticipate increased space reservations.

Any space remaining after the apportionments, Dec. 15, will be available to non-members.

Balcony space for exhibits of accessories, has been reserved by the principal accessory jobbing houses, oil refineries, tire and battery dealers and others engaged in the various branches of the automotive industry. While some desirable locations are still available in this department, the unreserved portion is rapidly being taken.

Stratton Makes Changes

ALBANY, N. Y., Nov. 20.—The E. V. Stratton Motors Co., Inc., Hudson-Essex distributors, announces a number of personnel changes in connection with taking over the C. C. Nuckols Motor Sales of Troy and establishing a branch in that city. In addition to making J. W. Gardner manager of the Troy branch the corporation has made the following appointments: Assistant general manager, G. C. Denike; wholesale manager, H. S. Ackerman; secretary, Edith L. Jones; bookkeeper and cashier, Eric Hover.

Use AC Speedometer

FLINT, Nov. 19.—The AC speedometer is now standard on all Willys-Knight, Overland and Whippet automobiles.

Extra G. M. Dividend

NEW YORK, Nov. 20.—Declaration of a \$4 extra dividend on the common stock was the answer of the directors of General Motors Corp. to Wall Street reports of a slump in the automobile business.

With the regular dividends, also declared at the meeting, the extra will call for payment to stockholders of more than \$34,000,000, and this, says President Alfred P. Sloan, Jr., is the "best

Becomes Chief Engineer of Marmon Company



Thomas J. Little, Jr.

G. M. Williams, president of the Marmon Motor Car Co., announces appointment of Thomas J. Little, Jr., president of the Society of Automotive Engineers, as chief engineer of the Marmon company. Mr. Little will assume his new duties Dec. 1. Until recently he was chief engineer of the Lincoln Motor Co. and he will fill the post vacated by the resignation of D. G. Roos.

Mr. Little also has been associated with the engineering department of Cadillac rising in that organization to the position of research and experimental engineer. Previous to entering the automotive engineering field in 1917 he had wide technical experience and he has a long list of inventions to his credit.

possible evidence as to not only the general position of the corporation from the standpoint of current business and its financial position but also expresses the confidence of the directors as to the future."

Holders of General Motors common stock through 1926 will have received \$20.50 in cash, including payments on the 50 per cent stock dividend distributed Sept. 11. Besides the regular \$1.75 quarterly, two extras of \$4 have been declared. Total sales of the corporation for the year will be over \$1,000,000,000 and net profit somewhat under \$200,000,000.

The regular quarterly dividend on the common is payable Dec. 11 to stockholders of record Nov. 20 and the regular preferred and debenture dividends Feb. 1 to holders of record Jan. 10. The \$4 extra is payable Jan. 4 to holders of record Nov. 20.

Automotive Employment Off Slightly in October

Only Small Payroll Drop Despite Season's Cut of Production

WASHINGTON, Nov. 20.—Despite a seasonal curtailment of production in the automobile industry, the decrease in employment during October was but slight, according to reports received by the U. S. Department of Labor, in connection with its monthly survey of nation-wide employment conditions.

Reports from the automobile manufacturing centers, are as follows:

Detroit—Surplus of common labor and machine hands, most noticeable in automobile factories. A large motor company at Highland Park is operating on a five day a week schedule, with about two-thirds of their usual number of men employed.

Flint—Some units in automobile factories and accessory plants are operating overtime. A large automobile foundry to cost \$5,000,000 is under way and when completed will employ 1,700 men.

Bay City—A large addition to a motor plant is under construction.

Toledo, Ohio—A \$1,000,000 addition to a spark-plug factory is among the larger building projects under way.

Akron—Rubber factories are operating on full time schedules. Two large rubber-tire companies announced this month their plans for building new improvements to their plants, which will cost approximately \$1,250,000.

Mansfield, Ohio—The rubber industry is operating on normal schedule.

New Jersey—Automobile and accessory plants are undergoing seasonal recession. Some departments of the tire plants in Trenton curtailed their working forces in October.

Syracuse, N. Y.—Seasonal conditions have affected the automotive industry and gear factories have released 300 workers.

Pennsylvania—Production and employment in the automobile industry is approaching a seasonal curtailment. At Johnstown: The rubber-tire industry employed additional skilled workers during October.

Chrysler Output Record

DETROIT, Nov. 20.—The Chrysler Corp., in October, broke all its previous records for the month by manufacturing 22,124 cars, J. E. Fields, vice-president in charge of sales announces. This represented a 19 per cent gain over September and a gain of 51 per cent over October, 1925.

Stearns Sales Jump

CLEVELAND, Nov. 20.—Sales of Stearns-Knight cars in October exceeded totals for September by 55 per cent, according to a statement by the factory.

Nichols to Be Head of New Knight Six Company

Car's Introduction Planned for Sometime During Early Spring

DETROIT, Nov. 20.—John A. Nichols, Jr., former vice president of Dodge Brothers, Inc., will be president of a new company being organized to manufacture in Detroit a six-cylinder Knight engined car of medium size to sell in the lower price levels, it has been learned. Associated with him will be several executives well known in the industry.

No definite name for the company or of the car has been divulged. General offices have been established in the Majestic Bldg.

The new car will be typically American, it was stated, and priced near the \$1,000 mark. Its introduction will be an event of early spring, probably about March.

Mr. Nichols is well known in the industry through his ten years association with Dodge Brothers. He was one of the original sales executives of that corporation and for several years, prior to his resignation several months ago, was a vice president of the corporation.

R. N. Harger, who for some time was director of advertising and sales promotion of Dodge Brothers, and who for the past two years was managing director of Dodge Brothers, Britain, Ltd., will be associated with Mr. Nichols in the executive personnel. R. H. Allen, who was director of purchases of Dodge Brothers for several years, will also serve in an executive capacity.

D. R. Wilson, vice president and general manager of the Wilson Foundry Co. of Pontiac, builders of Knight sleeve-valve engines, and Frank Tillotson, Detroit banker, will be members of the board of directors, and, it became known that John N. Willys, president of Willys-Overland, Inc., is lending his personal indorsement and financial support to the company.

Plan New Rickenbacker Line

DETROIT, Nov. 20.—Action of the Rickenbacker Motor Car Co. in requesting that a temporary receiver be appointed for the company will pave the way for an expansion of Rickenbacker business, and, the receivership will be terminated within six months time, was the opinion expressed by Charles M. Tichenor, who has assumed his post as vice president and general manager of the company.

At a meeting of the directors it was decided that manufacturing should be resumed at once on a new line of Rickenbacker automobiles which will be introduced about Dec. 1.

According to Mr. Tichenor the company will produce the new models at the rate of 100 a week for the balance

of November, and will build between 400 and 500 cars in December.

Rickenbacker's financial situation isn't as unsatisfactory as might appear at first blush, said Mr. Tichenor. The company's indebtedness to creditors is about \$500,000, which, in view of the fact that the company owns all of its factory buildings, is not a bad condition.

The new models which Rickenbacker is about to introduce were described as larger and a better job all the way through, than the present line. Many of the dealers have been to the factory to see them and have left very enthusiastic, Mr. Tichenor said, adding that the company will also strive to increase its dealership throughout the country.

International Race Dates

WASHINGTON, Nov. 20.—Dates of the principal international motor contests, for 1927, have just been announced in Paris and cabled to the automotive division, U. S. Department of Commerce. The dates, fixed by the International Sportive Commission, are as follows: Grand prize of Indianapolis, Indianapolis, U. S. A., May 29; Grand Prize of the Automobile Club of France, at Paris, July 3; Grand Prize of Great Britain, at Brooklands, England, August 1; Grand Prize of Europe, at Milan, Italy, September 4; and the Grand Prize of Spain, San Sebastian, September 25.

Business Conditions Department of Commerce Gives View of Current Situation

The dollar volume of trade during the second week of November, as seen from check payments, was larger than for either the previous week or the corresponding week of last year, according to the weekly statement of the Department of Commerce. The distribution of goods during the first week of November, as seen from figures on car loadings, while slightly less than that recorded in the last week of October, was considerably greater than the corresponding week of 1925. The value of new-building contracts awarded during the second week of November was slightly lower than for either the previous week or the same week of last year.

Wholesale prices showed little change from the first week of the month, iron and cotton moving upward while wheat, copper and lumber declined. Prices of most commodities were well below last year. Loans and discounts of Federal reserve member banks were slightly lower than for the previous week but were higher than a year ago. Interest rates, both on call and on time money, were less than during either the previous week or the corresponding week of last year. Business failures were more numerous than in either the previous week or the second week of November, 1925.

W. C. Stettinus Elected New N.S.P.A. President

Convention and Show Draw Many Makers and Jobbers to Chicago

CHICAGO, Nov. 19.—The meeting of the National Standard Parts Association, which closed this afternoon, marked the termination of the third annual convention, which with the show of automotive parts, has drawn manufacturers and jobbers from all over the United States during the past week. Since the inauguration of the association two years ago, the growth has been rapid, 97 members being added during the last year, making a total of 221, which includes 112 jobbers and 109 manufacturers. The aim of the association is to have a total of 350 members at the time of the next convention and show.

The various sessions of the show were well attended and afforded manufacturers the opportunity of making jobbers better acquainted with parts, tools and the factors that affect their use. On Thursday night the show was thrown open to dealers as well as jobbers and manufacturers. In addition to the better understanding between makers and distributors, which the show and convention afforded, two other accomplishments of the association in the last year were the promotion of sectional associations of jobbers and the adoption of a standardized bookkeeping and stock record manual.

Officers for the ensuing year were elected as follows: President, W. C. Stettinus, of the American Hammered Piston Ring Co., Baltimore, Md.; vice president, W. C. Mills, Auto Parts Co., St. Louis, Mo.; manufacturer directors, C. M. Burgess, Burgess-Norton Mfg. Co., Geneva, Ill.; Oscar K. Buehler, Indianapolis Tool & Mfg. Co., Indianapolis, Ind., and F. J. Glennon, Kant-Skore Piston Co., Cincinnati, Ohio. Jobber directors, George Kreplin, Triangle Parts Co., San Francisco, Cal.; T. L. McGonagle, Denver Gear and Parts Co., Denver, Colo., and T. S. Grape, Bearing Sales Co., Washington, D. C.

Bassett Estate \$1,750,000

FLINT, Nov. 20.—The late Harry H. Bassett, president and general manager of the Buick Motor Company and vice president of General Motors Corp., left personal property valued at approximately \$1,750,000 according to the terms of his will filed for probate.

Jessie Bassett, his widow, will receive one-half of the entire estate, Harry Hood Bassett, his son, receives three tenths and the remaining one-fifth goes to Marie Antoinette Bassett, an adopted daughter. The First National Bank Trust Company of Flint was named special administrator.

Cheerful 1927 Outlook Envisaged by C. W. Nash

Kenosha Maker Sees Nothing to Dim Hope for a Normal Business

KENOSHA, Wis., Nov. 20.—That nothing exists in the general business condition of the country today which should "cause us to feel we are not entitled to expect a normal business for the year 1927" is the opinion of C. W. Nash, president of The Nash Motors Company.

"While it is a fact," said Mr. Nash, "that the cotton crop was 'too good' this year, making the price too low and that early frost damaged some of the corn crop, and in the northwest, wet weather damaged wheat to some extent, yet I believe we will emerge from these drawbacks and find ourselves in a rather healthy position.

"I feel that we will not be confronted with too much political turmoil next year and I am of the opinion that if business men as a whole take a sane view of conditions and operate their various businesses along sane and economical lines, we are bound to have a very satisfactory 1927 business.

"It should not be overlooked that the balance of the world is getting into a little better position to buy more goods from America than have been bought in the past few years. This will also help.

"I am very hopeful that labor will recognize the important part it has played in the affairs of our nation and will go along in the same manner it has been following for sometime past. This also would have a great bearing on general conditions of 1927.

"So far as the automobile industry in particular is concerned, I feel that its outlook is safe and sound. However, I believe it to be a fact that the automobile business will be done by fewer manufacturing companies in the future than in the past but that automobiles will be made in larger numbers and that they will be made better each year. In this connection, I don't see anything particularly hazardous about the financing of automobiles for the retail buyer when financed on a proper basis."

New Heavy Duty Spark Plug

FLINT, Nov. 20.—A new spark plug developed especially for bus, truck, marine and other heavy duty equipment, is announced by the AC Spark Plug Co. The new plugs will retail at 90 cents and will be provided in three sizes, $\frac{7}{8}$ in. Long Thread Type D; Metric Type G and $\frac{7}{8}$ in. Long Body Type I.

The new plug has a recessed insulator with knife edge rings which attain sufficient heat to burn away oil deposits, thus minimizing carbon troubles. An extra large center electrode of improved

alloy is designed to provide longer life. A baffle at the firing end shields the insulator and center electrode from the full heat of the explosion, insuring cooler running and greater life to electrodes and insulator. The plugs also have extra large side electrodes of the improved alloy, insuring a more permanent wide spark gap. They are electrically welded to the shell and so shaped as to provide a natural drain for oil deposits.

Ford Colors in Parade

ST. LOUIS, Mo., Nov. 20.—New color options available on Ford cars were displayed by parades of Ford dealers under the guidance of a grand marshal provided by the Ford factory branch here recently. A parade was held on each day for a week and St. Louis, E. St. Louis, Ill., Webster and Clayton were covered. Each dealer was limited to one car. A Ford truck with a red and gold panel body finished in circus fashion and carrying a calliope followed the office car in which the grand marshal rode.

The entry of each dealer differed from that of every other dealer, showing twenty five options in bodies, colors, wheels and appointments in Ford products. These form only a part of the possible options.

Hold Closed Car Show

JANESVILLE, Wis., Nov. 22.—An enclosed car show, the first of its kind to be held in a city of 25,000 or less population in Wisconsin, was staged by the Janesville Auto Dealers' Association from Nov. 17 to 21, at the Franklin Gardens Auditorium. The show attracted visitors from all over southern Wisconsin and even from northern Illinois.

Apco Acquires Anti-Shimmie

PROVIDENCE, R. I., Nov. 20.—Apco Manufacturing Company announces that it has taken over the business of the Anti-Shimmie Manufacturing Co., of Kansas City, Mo., at the same time acquiring exclusive right to manufacture and sell anti-shimmies under the Campbell patents.

Dealers Hold Opening

GREEN BAY, Wis., Nov. 20.—Brown County Motors, Hudson and Essex dealers, held a grand opening today of their new building. Music and prizes were provided for the guests.

Schrader Builds at Akron

BROOKLYN, Nov. 20.—A Schrader's Son, Inc., of Ohio, has erected a five-story reinforced concrete factory building in Akron. The new building adjoins the present Schrader warehouse at 705 Johnston Street. Erection of this building follows completion of two seven-story reinforced concrete buildings, which were added last year to the group of Schrader buildings located in Brooklyn.

Studebaker Plans Sale Of Erskine Six in U. S.

Will Begin Production on New Line's Four Body- Models in January

SOUTH BEND, Ind., Nov. 20.—The Erskine Six, Studebaker's new "light European car," will be marketed in America, it is officially announced by A. R. Erskine, president of the Studebaker Corporation. The new design was introduced in Europe at the Paris Salon in October and has been exhibited in other foreign shows.

It will be exhibited at the national shows in New York and Chicago and is to be sold in this country through Studebaker dealers, Mr. Erskine says.

In his statement Mr. Erskine announced further than production on the Erskine Six will be started at the Detroit plants of the corporation in January and that four models are to be built. The line will include a five-passenger four-door sedan, a five-passenger tourer with folding top, a four-passenger coupe with a rear deck seat and a two-passenger business coupe.

The corporation is highly gratified over the car's reception abroad and states that the Erskine Six is particularly adapted to meet requirements of American conditions.

Offer Many Color Options

DETROIT, Nov. 20.—A wide variety of paint schemes are now offered on the Packard six cars in place of the regular production colors, it is announced by Packard Motor Car Company.

The eight cylinder models which were introduced three years ago have since that time been offered with any color combination the purchaser might care to select and the announcement of optional colors on the six cylinder series marks all Packard cars as now being offered in color options. The colors on the six cylinder models are listed in the Ditzler Silver Anniversary Color Book. Upholstery equipment remains the same as before.

N. A. F. C. Officers Named

CHICAGO, Nov. 20.—New officers of the National Association of Finance Companies, elected by the Board of Directors, are: President, E. M. Morris, Associates Investment Co., South Bend, Ind.; first vice-president, John L. Little, National Bond & Investment Co., Chicago; second vice-president, F. R. V. Williams, Finance & Guaranty Co., Baltimore; third vice-president, L. F. Weaver, L. F. Weaver Co., San Francisco; fourth vice-president, J. J. Schumann, Jr., General Motors Acceptance Corp., New York. W. G. Tennant of Chicago was reelected treasurer and C. C. Hanch was reelected secretary and general manager.

G. M. Retail Sales Hit Fast Comparative Pace

First Ten Months 49 Per Cent Ahead of Period in 1925

DETROIT, Nov. 20.—Sales by General Motors manufacturing divisions to dealers in October totaled 115,849, compared with 96,364 for the same month of 1925 and with 49,552 for October 1924, according to the corporation's monthly compilation.

The corporation also reports sales by dealers to users in October totaling 99,073, compared with 86,281 in October, 1925, and with 46,003 in October of 1924.

This brings the total sales to dealers for the 10 months to 1,112,170, compared with 708,411 for the period of 1925 or an increase of 57 per cent. Sales by dealers to users for the 10 months this year were 1,061,368, compared with 710,670 in the same period of 1924, or an increase of 49 per cent.

The tabulation includes passenger cars and trucks sold in the United States, Canada and overseas by Chevrolet, Pontiac, Oldsmobile, Oakland, Buick and Cadillac divisions.

Murray Body Earnings

DETROIT, Nov. 20.—Murray Body Corp. reports for nine months ended September 30, 1926, profit of \$1,118,500 after all charges and reserves. This is equivalent to approximately \$4.00 a share for the nine months period on 280,000 shares to be outstanding under reorganization. It is estimated earnings for the year will exceed \$5.00 a share and it is understood the receiver has in the neighborhood of \$3,000,000 in cash.

Myers Goes to St. Louis

MEMPHIS, Tenn., Nov. 20.—It is announced that R. L. Meyers, sales manager of the Memphis factory branch of the Chevrolet Motor Co., has been promoted to assistant regional sales manager of the mid-west district, headquarters St. Louis. T. J. Burns at the same time comes to Memphis as sales manager for the same office. He has been with the factory in various capacities.

Tire Plants Expand

AKRON, O., Nov. 20.—Tire factory additions totaling in cost more than \$1,300,000 have been announced by two Akron corporations. With equipment, the total expenditures for expansion will aggregate nearly \$2,000,000.

To make possible increased production of Ford size tires, the Firestone Tire & Rubber Co. will start work in two weeks on a four-story addition to Plant 2 in South Akron, officials stated.

The enlarged factory space and new tire making machinery will make possible an increase of about 20 per cent

in Ford tire production, which now averages approximately 20,000 tires and tubes a day.

Construction of four new buildings at the Akron plant of the Goodyear Tire & Rubber Co. has been started. All will be used as warehouses.

Plan New Oakland Foundry

PONTIAC, Nov. 20.—A foundry to cost approximately \$2,750,000 and which will employ 1200 men will be built by the Oakland Motor Car Co., as a part of the new Pontiac factory which is now under construction. The appropriation for the foundry has already been authorized by General Motors Corp., and building operations will be started as soon as plans can be ratified.

Decision to build the foundry will increase General Motors investment in the new Pontiac factory to \$10,350,000. The main foundry building will be 300 by 700 feet and will have a capacity of 300 tons of iron daily.

9 Months Beat All of 1925

FLINT, Nov. 20.—The Buick Motor Co. has sold more cars during the first nine months of the year than it did during the entire year of 1925, according to E. T. Strong, general sales manager. Deliveries from January to September, inclusive, aggregate 202,368, while the record for the entire year of 1925 was 200,041 cars. The record also exceeds by 57,416 cars, the mark set up from January to September, inclusive, in 1925. Mr. Strong is of the belief that a new all time 12-month record will be established by the end of December. The best previous mark was that ending July 31, 1926, during which 240,000 Buicks were delivered to owners.

Permanent Used Car Salon

SEATTLE, Wash., Nov. 20.—A somewhat radical departure from the ordinary system of merchandising used automobiles, is now being sponsored by Washburn-Haines Company, Inc., Seattle, Chrysler distributors in Western Washington. This firm has established a permanent "used car salon," bearing all the earmarks of a full-fledged automobile show.

The new used car department is located on the second floor of the Standing Building, at Westlake and Lenora, with 14,000 square feet of floor space. Cars are grouped by makes, and over each grouping is suspended an illuminated sign, designating the type of car beneath it. Harmonious decorations and brilliant lighting effects carry out the idea of an "auto show."

Talks About Used Cars

ROCHESTER, N. Y., Nov. 20.—Lane Stephens, of the National Automobile Dealers' Association, recently addressed a dinner meeting of the Rochester Automobile Dealers' Association. His subject was "Used Cars, the Pitfall of Profits."

Automotive Industry a Big Prosperity Element

Myron E. Forbes Notes Contrast in Conditions Here and Abroad

BUFFALO, Nov. 20.—President Myron E. Forbes and Chief Engineer Charles Sheppy of the Pierce-Arrow Motor Car Company have returned to Buffalo from Europe, where they attended the International Automobile Salon in Paris. They exhibited at the salon Pierce-Arrow's new Series 36 Dual Valve Six.

Mr. Forbes said that, until one observes at first hand the business conditions in Europe, it is impossible to realize what an important part the automobile industry has played in American prosperity.

"Here in America we build nearly seven-eighths of the world's output of automobiles," said Mr. Forbes. "The other one-eighth is divided among all the other countries which are manufacturing cars.

"The billions that have been spent in erecting factories and in buying tools and equipment, not to mention the billions that have been spent in wages, have stimulated industrial growth and prosperity in America to an extent that is far beyond that of any European country."

Effect Consolidation

DETROIT, Nov. 20.—Consolidation of the Wilcox Motor Parts & Manufacturing Co., of Saginaw, and the Intra Steel Products Corp., of Detroit, has been brought about as the result of the organization of a new corporation which will be known as the Wilcox Products Corporation and which has acquired the two above named companies.

The new corporation will retain headquarters in Saginaw and plans an extensive expansion program. The corporation manufactures piston rings, valves and 2-piece valve tappets.

Officers are: M. L. Wilcox, president; C. H. L. Flinterman, executive vice-president; N. A. Moynihan, treasurer and A. B. Schall, secretary and assistant treasurer.

White Mileage Tabulation

CLEVELAND, O., Nov. 20.—The White Company has made public its annual check-up on high mileages attained by White trucks and buses. This year, the factory announces, 8024 owners of White trucks and buses report mileages reached 100,000 miles or more. Nine hundred and fifty-one Whites are said to have passed the 200,000 mark, 384 have exceeded 300,000 while 72 have passed the half million notch. The 100,000-mile mark this year shows a gain of 2005 trucks and buses over last year's tabulation.

Six American Makes In Paris Truck Show

Few New Developments Are Revealed in a Canvass of Exhibit

PARIS, Nov. 4.—(By Mail)—One week after the closing of the French passenger car show, the Grand Palais was reopened with a truck and utility vehicle exhibition uniting all French makes, six from the United States, three from Italy and one from Belgium. Much smaller than the passenger car exhibition and attracting less public attention, the show does not occupy the whole of the available space and is supplemented by automobile accessories and wireless displays.

American exhibitors are Ford and Fordson, Graham Brothers, Dodge, Studebaker, Pierce-Arrow, Chevrolet and General Motors. The Studebaker Corporation exhibited a 20-passenger single deck coach built at the Hague by Koetswerk, on a big six chassis, which had been sent up to Paris by road prior to going into service in Holland.

Comparatively few new developments are revealed at this show, the outstanding features of which are the number of suction gas producer plants, drop frame chassis for coaches, an extended use of front wheel brakes with servo mechanism, and fabric leather bus bodies.

Double Bumper Schedule

GANANOQUE, Ont., Nov. 20.—Building operations are now under way at the plant of Skinner Co., Ltd., this city, which will increase production of automobile bumpers from 500 to 1,000 a day. The company is putting up a new forge shop and has purchased two adjoining buildings which will be remodeled to meet requirements in connection with their bumper business. The work, it is hoped, will be completed in December in good time for next year's business.

White at Capacity

CLEVELAND, Nov. 20.—White Motor Co. continues to operate at capacity and a regular night shift is still being maintained. Third quarter production and sales were the largest of any similar period in the company's history, with the exception of 1918-20, when war contracts expanded the business heavily.

Novel Prospect Drive

SEATTLE, Wash., Nov. 20.—As part of a sales drive to increase the retail delivery of Overland Six Willys-Overland dealers of Seattle have inaugurated a novel merchandising plan. A credit of \$7.50 per name, up to ten names, is being offered for prospect lists sent in by anyone interested in the purchase of a new car. The total

So Few Horses Last Hay Man Quits

SAN FRANCISCO, Cal., Nov. 20.—The last hay dealer in Grass Valley, once the center of the hay and feed industry of California, recently closed his office and warehouse. He is Henry Daniels, the only one of seven hay dealers of five years ago who was able to hang on to the business of feeding the vanishing horse up to 1926.

Four of the other hay dealers are now running oil and gasoline stations; one of them is operating a garage, and the whereabouts of the sixth is unknown. Daniels points out that the replacement of the horse by the passenger car and the motor truck, and the building of paved highways into the remotest parts of California, have put the horse out of business, except as a riding animal.

credit of \$75 is applicable on any one of 100 of the Overland six sedan or coupe models which have been set aside for this prospect development campaign.

The credit itself does not depend upon the sale of a car to any one of the prospects submitted, but involves only sending in the list of names and is issued to the sender as soon as the list has been received and checked as acceptable by the sales organization. Sales managers of the dealers in Seattle feel that this plan will bring their representatives into direct contact with many hundreds of people who are contemplating the purchase of a new car at the present time, but who are not being reached in the normal course of a day's work.

Handle Driveaways

DALLAS, Tex., Nov. 20.—To facilitate driveaway delivery of new cars from factory branches at Dallas and Houston the Dealers' Convoy Company of Dallas and the McDonald Accessory Company of Houston have been formed. These companies are delivering new cars to dealers within 50 miles of branches. The business at present is confined in a large part to Fords but the companies are extending activities to other branches. The accessory company delivers parts in the same way.

Concentrate at Detroit

DETROIT, Nov. 20.—The C. M. Hall Lamp Co., which recently acquired control of the Edmunds & Jones Co., has sold its factory in Kenosha, Wis., to the American Brass Co., and will concentrate all its lamp manufacturing activities at the Detroit factories. The plant at Kenosha, which is located adjacent to another factory of the American Brass Co., will make it possible for the latter concern to extend its operations.

DB Cash Sales Run 45 Per Cent of Total

Survey Made by Company's Treasurer Comprehends 39,095 Deals

DETROIT, Nov. 20.—An analytic survey of installment buying of motor cars, just completed by R. P. Fohey, treasurer of Dodge Brothers, Inc., brings out the interesting fact that 45.1 per cent of the buyers of Dodge Brothers motor cars pay cash.

In arriving at his figure, Mr. Fohey took 39,095 sales of new cars made by Dodge Brothers dealers and analyzed them. The analysis proved that 17,629 or 45.1 paid cash.

It was found that in not a single district in the United States or Canada did the amount of cash sales fall below 23 per cent, and, there were districts where cash sales constituted as much as 65 per cent of the total volume of business.

Mr. Fohey believes that the policy of Dodge Brothers dealers in requiring a large down payment and not more than 12 monthly installments is largely responsible for the unusual volume of cash business. Despite these regulations Dodge Brothers sales for the first 9 months of the year increased 41.5 per cent.

Free Coal with Used Car

MILWAUKEE, Nov. 20.—Hokanson-Thompson, Inc., 466 Jackson Street, Milwaukee, distributor of the Oakland and Pontiac in Wisconsin and Upper Michigan, introduced a distinct novelty in used car sales promotion by its retail department recently. With each used car sold during the month a certain quantity of coal was offered. Cars selling up to \$400 were accompanied by one ton of coal; \$401 to \$800, two tons, and \$801 and up, three tons. The "stunt" attracted wide attention, especially by reason of unique display advertising. The idea worked so well that it is called an unqualified success in wiping out the used car accumulation.

Stage Ford Sales Campaign

SAN ANTONIO, Tex., Nov. 20.—San Antonio Ford dealers recently ended a successful sales campaign, featured under the slogan of "Buy a Ford and Spend the Difference," with a dinner, tendered by the five San Antonio dealers to their salesmen.

R. S. Yantis of the Yantis Motor Company presided and announced that A. M. Nicholson, of Morgan-Woodward, led all the Ford salesmen of the city in new car sales for the month, with a total of 47 new Ford units to his credit. He will receive a cash bonus from his firm as a reward. J. J. Hart of Herpel-Gillespie led in new car sales for the last 10-day period, and will also receive a present from his firm.

4,500,000 Car Market Next Year Is Prophecy

Reeves Predicts Exports in 1927 Hitting the Mil- lion Mark

LOUISVILLE, Ky., Nov. 20.—“The outlook for the automobile industry was never better,” Alfred Reeves, general manager of the National Automobile Chamber of Commerce, told members of the Louisville Automobile Dealers' Association at a dinner meeting at the Brown Hotel. Prince Wells, president of the Louisville organization, presided over the gathering of more than 300.

Mr. Reeves prophesied a 1927 market of 4,500,000 cars, with 1,000,000 cars being exported to 95 foreign countries. “The saturation point will be reached,” Mr. Reeves said, “when every man has a car and none wears out.”

“I do not believe there is going to be the great dips in the business that happened formerly, because we have so much more information concerning the causes of these periods of depression. Every day the motor manufacturer secures from the dealer an exact statement of how many cars the dealer has on hand, and the possibility of overproduction is therefore greatly lessened. With Mr. Hoover in charge of the Department of Commerce and with the responsible political offices of the country competently filled I do not look for any sudden tapering off of the motor car business. The industry is well off.”

Tire Dealers Have Banquet

BOSTON, Nov. 20.—The Boston Tire Dealers Association had 350 members and guests present at its first banquet here at the Boston Chamber of Commerce. President Charles I. Geigen, of the Atlas Tire Company, was toastmaster. George J. Burger, secretary and treasurer of the National Tire Dealers Association, was the principal speaker, and he devoted his talk to details of better merchandising methods, how to deal with the public and the factory officials, also the value of organization. William J. Fortune, vice-president of the National Shawmut Bank spoke on financial problems in the automotive industry. E. B. Gallagher, of Norwich, Conn., explained methods of upbuilding an organization, and Jerome T. Shaw, editor of “Tires,” talked about the rubber industry in its relation to tires.

Boosters Elect Officers

BOSTON, Nov. 20.—At a meeting of the Boosters Club, No. 1, of New England, George W. Fleming of Worcester was chosen president. He is the president of the Fleming Machine Company. J. Raymond Dade, of the Sparks-Withington Company, was elected vice-presi-

dent, W. C. Scott, of the Biflex Company, treasurer, and Alfred Fraser, manufacturers' representative, secretary. The directors chosen are: D. G. Caywood, Charles M. S. Foster, O. C. Leighty, Stan Stowers and H. V. Tassinari. Following the election President Fleming bedecked retiring president Charles M. S. Foster with a jeweled gothic letter B emblem.

Estel Scott to Preside

KANSAS CITY, Mo., Nov. 20.—Estel Scott, manager here for the General Motors Truck Company, was elected president of the Kansas City Motor Car Dealers' Association at a meeting of the board of directors. The directors had been chosen by the membership at large at a dinner meeting a few days previously.

W. P. Hemphill, president of the Hemphill Motor Company, Marmon and Oakland dealers here, was chosen vice-president and George A. Bond, who has been secretary-treasurer for several years, was re-elected for another term.

Cleveland Boosters Meet

CLEVELAND, Nov. 20.—The Automotive Boosters' Club of Cleveland recently held its annual business meeting and election of officers at the Winton Hotel.

Officers were elected as follows: President, W. E. Washburn, Jr., representing the Raybestos Company; vice-president, J. F. Werder, Zipp Abrasive Co.; secretary, C. R. Stanley, Wolverine Bumper Co.; treasurer, Archie Jordan, U. S. Air Compressor Co.

The new directors are composed of the above mentioned officers and C. M. Hall, manager of the Cleveland office for Black & Decker; R. S. Staples, W. H. Thomas Mfg. Co.; Ira Saks, Pennsylvania Piston Ring Co.; L. E. Christopher, Buckeye Brass & Mfg. Co.; Russell Wendell, U. S. Chain & Forging Co.; K. S. Clapp, U. S. Air Compressor Co., and R. M. Williams, manufacturers' agent of this city.

Shaw Talks at Columbus

COLUMBUS, O., Nov. 20.—About 70 automobile dealers, from a radius of 25 miles of Columbus recently attended a meeting, sponsored by the Columbus Automobile Dealers' Association at the Neil House. Lynn M. Shaw, assistant general manager of the National Automobile Dealers Association, was the speaker on “Management's Guide to Profit” which was an explanation of the proper methods of carrying on the dealer's business. He showed that the business of merchandising automobiles has been changing so rapidly that methods are soon obsolete. He gave facts and figures to show the necessity for many dealers to reform their practices. Mr. Shaw was secured as the speaker through the efforts of A. C. Faeh, secretary and manager of the Ohio Council, National Automobile Dealers Association.

Merchandising Campaign Is Under Way in Ohio

N. A. D. A. Council Manager Arranges Series of Local Meetings

COLUMBUS, O., Nov. 20.—A. C. Faeh, manager of the Ohio Council of the National Automobile Dealers' Association, has arranged a series of local merchandising meetings to be held in various parts of the state during November and December. The first of these meetings was held at Toledo, Nov. 17. The second meeting will be held in Columbus, at the Neil House, Nov. 22, with Gaylord Ford as the principal speaker. Automobile dealers from a radius of 65 miles of Columbus have been invited to attend. This meeting will be under the auspices of the Columbus Automobile Dealers Company, which is composed of the principal dealers and distributors of the Buckeye capital.

There will be a meeting at Akron, Dec. 1 and another at Youngstown, Dec. 3. Speakers at these meetings will be taken from the list of seven which will be used in Ohio to cover the state. They are Gaylord Ford, Robert E. Lee, Joseph Kellerman, Lynn M. Shaw, H. D. Bullock, H. M. Fancher and Edward Payton.

Later on, following the New York and Chicago shows it is planned to extend the meetings to the eastern, southern and western parts of Ohio.

Bauer Back from Abroad

NEW YORK, Nov. 20.—In order to develop our export business to the maximum in Europe, it is essential that our cars be designed with a view to utmost economy but not at the expense of efficiency, and that the same aggressive merchandising policies employed in this country be put to work there, is the opinion of George F. Bauer, secretary of the foreign trade committee of the National Automobile Chamber of Commerce.

Mr. Bauer has just returned from a tour of 11 European countries.

His mission in Europe was to convey to the various associations before whom he appeared information regarding our traffic control methods and to assist in the promotion of some of the “fundamentals” which have made possible motor car development in this country.

Discuss Used Cars

SEATTLE, Wash., Nov. 20.—With Col. Frederick Insinger as main speaker 30 members of the Seattle Used Car Managers' Association held a meeting recently. The topic of Col. Insinger's talk was “What Is a Used Car Manager?”

Many important questions relating to the appraisal of automobiles were discussed and a guide to used car valuations was put up before the members which was approved.

Coming Motor Events

Automobile Shows

1927 NATIONAL SHOWS
New York.....Jan. 8-15
Chicago.....Jan. 29-Feb. 5

Akron, O.....Feb. 5-12
Goodrich Bldg.
Albany, N. Y.....Feb. 26-March 5
State Armory
Allentown, Pa.....Feb. 28-March 5
Manhattan Auditorium
Altoona, Pa.....June 11
Atlantic City.....April 30
Baltimore, Md.....Jan. 22-29
5th Regiment Armory
Boston, Mass.....March 5-12
Mechanics Bldg.
Brooklyn.....Jan. 22-29
Twenty-third Regiment Armory
Buffalo.....Jan. 15-22
174th Regiment Armory
Camden, N. J.....Feb. 7-12
Convention Hall
Charlotte, N. C.....May 9
Chicago.....Jan. 10-15
American Road Builders' Association, Coliseum
Chicago.....Jan. 29-Feb. 5
Annual Salon, Hotel Drake
Cincinnati.....Jan. 15-22
Music Hall
Cleveland.....Jan. 22-29
Public Auditorium
Cumberland, Md.....Jan. 31-Feb. 5
Armory
Deadwood, S. D.....Feb. 21-26
Auditorium
Denver, Colo.....Feb. 14-19
Auditorium
Detroit.....Jan. 22-29
Convention Hall
Des Moines.....Feb. 14-19
Coliseum
Fort Wayne, Ind.....Feb. 14-19
Shrine Auditorium
Fort Worth, Texas.....March 5-12
Grand Rapids, Mich.....Jan. 17-22
Armory
Fresno, Cal.....April 28
Hartford, Conn.....Feb. 19-26
State Armory
Huntingdon, W. Va.....Feb. 21-26
Vanity Fair Bldg.
Indianapolis.....Feb. 14-19
Auto Show Bldg.
Kansas City, Mo.....Feb. 12-19
American Royal Building
Lancaster, Pa.....Feb. 1-5
Arcade Garage

Los Angeles.....Feb. 12-19
Annual Salon, Hotel Biltmore.
Los Angeles.....Feb. 26-March 6
Annual Show, Los Angeles Motor Car Dealers' Association.
Louisville, Ky.....Feb. 14-19
Jefferson County Armory
Milwaukee.....Jan. 15-22
Auditorium
Minneapolis.....Feb. 5-12
Overland Bldg.
Montreal, Can.....Jan. 22-29
National Motor Show of Eastern Canada, Morgan Bldg.
Muskegon, Mich.....Feb. 15-19
Armory
Newark, N. J.....Jan. 15-22
Twentieth Annual Newark Automobile Show.
New York.....Nov. 28-Dec. 4
Annual Salon, Hotel Commodore
Omaha, Neb.....Feb. 21-26
22nd Annual Automobile Show, City Auditorium.
Peoria, Ill.....Feb. 14-19
Armory
Philadelphia.....Jan. 15-22
Commercial Museum
Providence, R. I.....Feb. 5-12
Cranston Street Armory
Rocky Mount, N. C.....April 4-8
Tobacco Warehouse
Quebec, Can.....March 1-8
Drill Hall
Rochester.....Jan. 24-29
Edgerton Park
Saginaw, Mich.....March 9-12
San Bernardino, Cal.....Feb. 17-27
National Orange Show Bldg.
San Francisco.....Jan. 29-Feb. 5
Exposition Auditorium
Scranton, Pa.....Jan. 24-29
Armory
Sheboygan, Wis.....Feb. 14-20
New Eagles Auditorium
Sioux City, Iowa.....March 3-6
Auditorium
Sioux Falls, S. D.....March 2-5
Springfield, Ill.....Feb. 9-12
State Arsenal
Springfield, Mass.....Feb. 28-March 5
Municipal Auditorium
St. Louis, Mo.....Feb. 14-19
Union Market Bldg.
Syracuse.....Feb. 7-12
State Armory
Toledo.....Feb. 7-12
Civic Center Garage
Waterbury, Conn.....Jan. 24-29
State Armory

Wichita, Kans.....Feb. 22-25
Exposition Bldg.
Williamsport, Pa.....Jan. 24-29
Susquehanna Trail Garage

Races

A. A. A.
Los Angeles, Cal.....Dec. 12
Altoona, Pa.....June 11
Altoona, Pa.....Sept. 5
Atlantic City.....April 30
Atlantic City.....Sept. 24
Charlotte, N. C.....May 9
Charlotte, N. C.....Nov. 11
Detroit.....Sept. 10
Fresno, Cal.....April 21
Indianapolis.....May 30
Los Angeles.....Feb. 22
Los Angeles.....April 10
Los Angeles.....Nov. 27
Salem, N. H.....June 25
Salem, N. H.....Oct. 12
Syracuse, N. Y.....Aug. 27 or Sept. 3

Conventions

Automotive Service Association of New York, banquet, Hotel Astor.....Feb. 17
California Automobile Trade Association, Hotel Richelieu, San Francisco.....Dec. 17-18
Michigan Automotive Trade Association, Book-Cadillac, Detroit.....Jan. 26
Motor and Accessory Manufacturers Association, dinner, New York.....Jan. 12
N. A. C. C.
Chicago, Feb. 1—Service Meeting.
New York, Jan. 10-11—Third World Motor Transport Congress.
New York, Jan. 11—Service Meeting.
New York, Jan. 11—Banquet.
National Automotive Parts Association, Book-Cadillac, Detroit.....Jan. 27-28
National Automobile Dealers Association, Hotel Commodore, New York.....Jan. 10-11
National Automobile Dealers' Association, Hotel La Salle, Chicago.....Feb. 1-3
S. A. E.
Detroit, Jan. 25-28—Annual Meeting.
Detroit, Jan. 28—Carnival.
New York, Jan. 13—Banquet.

COMING FEATURE ISSUES OF CHILTON CLASS JOURNAL PUBLICATIONS

December 10—Operation and Maintenance—Service Station Equipment Issue
December 15—Commercial Car Journal—Good Roads Issue
January 1—Automobile Trade Journal—Annual Show Issue
January 6—Motor Age—Annual Show Issue
Jan. 15—Commercial Car Journal—New York Show Issue
January 27—Motor Age—Chicago Show Issue

Open Rolls-Royce Branch

COLUMBUS, O., Nov. 20.—The formal opening of the Columbus branch of the Rolls-Royce, located at 265 East Broad Street, held recently attracted large crowds. Randall N. Mitchell, formerly connected with the Columbus Packard Co., is head of the branch. All central Ohio will be covered by the branch. W. E. Hosac, vice-president of the

Rolls-Royce Co. of America, W. E. Drake, manager of the Cleveland branch, and Bruce T. LaPierre, manager of the Cincinnati branch were present at the opening.

Fisher Plans Building

FLINT, Nov. 20.—Building permits were issued to the Fisher Body Corp., for the erection of two new additions

to the plant which they recently purchased from the Flint Motor Co., and which is being equipped for the manufacture of bodies for Buick. The additions will cost \$312,000.

A dry kiln costing \$192,000 is provided in one of the permits. The kiln will be one story brick construction. 150 by 268 feet. The other permit was for a power house costing \$120,000. It will be two-story brick, 94 by 136 feet.

Prices and Weights of Current Passenger Car Models

SHIP

WT. PASS. BODY STYLE. PRICE

AUBURN "4-44"

5-p Touring \$1,145

5-p Roadster 1,145

2-p Coupe 1,175

5-p Sedan 1,195

"6"

2-p Roadster \$1,095

5-p Touring

5-p Brougham 1,195

5-p Sedan 1,295

5-p Wanderer Se'n 1,345

"6-66"

2850 4-p Sp. Roadster \$1,395

2860 6-p Touring 1,395

3-p Coupe 1,445

3020 5-p Brougham 1,495

3070 5-p Sedan 1,695

3070 5-p Wanderer 1,745

"8-77"

2-p Roadster \$1,395

5-p Touring

5-p Brougham 1,495

5-p Sedan 1,695

5-p Wanderer Se'n 1,745

"8-88"

(129 in. W. B.)

3180 4-p Sp. Roadster \$1,695

3200 6-p Touring 1,695

3-p Coupe 1,745

3380 5-p Brougham 1,795

3450 5-p Sedan 1,995

3450 5-p Wanderer 2,045

(146 in. W. B.)

7-p Sedan \$2,495

BUICK

"115"

2845 2-4-p Roadster \$1,195

2955 5-p Touring 1,225

3020 2-4-p Coupe 1,195

3150 5-p 2d. Sedan 1,195

3110 4-p Coupe 1,275

3230 5-p 4d. Sedan 1,295

(120 in. W. B.)

3800 4-p Coupe \$1,465

3670 5-p 2d. Sedan 1,395

3765 5-p 4d. Sedan 1,495

"128"

(128 in. W. B.)

3570 4-p Sp. Roadster \$1,495

3635 5-p Sp. Touring 1,525

3805 4-p Country Club 1,765

5-p Coupe 1,850

3-5-p Coupe 1,925

3940 5-p Brough. Sedan 1,925

4025 7-p Sedan 1,995

CADILLAC

"314" Standard Line

(132 in. W. B.)

4170 5-p Brougham \$2,995

4105 2-p Coupe 3,100

4190 5-p Victoria 3,195

4270 5-p Sedan 3,250

4460 2-p Sport Coupe 3,500

4590 5-p Sport Sedan 3,650

(138 in. W. B.)

4370 7-p Sedan \$3,400

4480 7-p Imperial 3,535

Custom Built

(132 in.)

4220 2-p Roadster \$3,350

4300 2-p Conv't Coupe 3,450

(138 in. W. B.)

4285 7-p Touring \$3,450

4275 5-p Phaeton 3,450

4465 5-p Sp. Phaeton 3,975

4465 5-p Coupe 3,855

4465 5-p Sedan 3,995

4580 7-p Suburban 4,125

4615 7-p Imperial 4,250

CASE

J. I. C.

3260 3-p Roadster \$1,840

3290 5-p Touring 1,885

3470 5-p Sp. Touring 2,160

3640 5-p Sedan 2,590

3650 5-p Brougham 2,590

"Y"

3950 7-p Touring \$2,225

4320 7-p Sedan 2,975

CHANDLER BIG SIX

3200 2-4-p Roadster \$1,695

3330 5-p Touring 1,545

3345 7-p Touring 1,645

3570 5-p 20th C'y Sedan 1,495

3570 5-p Met. Sedan 1,595

3485 4-p Coupe 1,675

3725 7-p Sedan 1,795

Standard Six

(108½ in. W. B.)

2475 5-p Touring \$ 945

2565 5-p De Luxe Tour. 1,005

2470 2-4-p Sport R'dster 1,135

2685 5-p Sedan 995

2620 2-p Coupe 1,035

2685 5-p De Luxe Sedan 1,095

2620 2-p De Luxe Coupe 1,125

Special Six

(115 in. W. B.)

2890 5-p Touring \$1,145

2940 5-p Sport Touring 1,295

2995 2-p De Luxe 1,195

2995 2-p De Luxe Coupe 1,285

3200 5-p Sedan 1,295

CHEVROLET "V"

1780 2-p Roadster \$510

1875 5-p Touring 510

2030 2-p Utility Coupe 645

2130 5-p Coach 645

2215 5-p Sedan 735

2215 5-p Landau Sedan 765

CHRYSLER

"50"

2145 5-p Touring \$750

2025 2-p Roadster 750

2130 2-4-p Roadster 795

2230 2-p Coupe 750

2335 5-p Coach 780

2410 5-p Sedan 830

"60"

2575 5-p Touring \$1,075

2545 2-p Roadster 1,145

2605 2-4-p Roadster 1,175

2690 2-p Coupe 1,125

2780 5-p Coach 1,145

2840 5-p Sedan 1,245

"70"

2845 2-4-p Roadster \$1,495

2930 7-p Sp. Phaeton 1,395

5-p Sp. Phaeton 1,495

4-p Cabriolet

3000 2-4-p Royal Coupe 1,545

3090 5-p Brougham 1,525

3150 5-p Royal Sedan 1,595

3160 5-p Crown Sedan 1,795

"80"

(185½ in. *)

3765 5-p Phaeton \$2,545

3805 2-4-p Roadster 2,595

4235 5-p Sedan 3,095

(192½ in. *)

4090 4-p Coupe \$2,895

4065 2-p Cabriolet 3,495

(198½ in. *)

4450 7-p Sedan \$3,295

4260 7-p Sedan Lim. 3,595

4265 5-p Town Car 5,495

†Cloth Upholstery. Leather at extra cost.

†Overall length.

CUNNINGHAM

"V-6"

4500 4-p Sp. Touring \$6,150

4600 7-p Touring 6,650

4700 4-p Coupe 7,600

5000 6-p Limousine 8,100

DAGMAR

"6-70"

3750 4-p Roadster \$3,500

3800 4-p Sp. Tourer 3,500

3700 4-p Phaeton 3,500

4200 4-p Petite Coupe 4,500

4200 4-p Petite Sedan 4,500

4500 4-p De Luxe Coupe 4,750

4700 5-p Sedan 4,700

4800 7-p Sedan 4,750

"6-60"

3150 5-p Touring \$1,785

3100 2-p Roadster 1,985

3200 4-p Sp. Touring 1,985

3500 5-p Sedan 2,445

DAVIS

"92-27"

2915 5-p Legion. Tour. \$1,495

3000 5-p Sedan 1,595

3060 5-p Imperial Sedan 1,795

"93-27"

2325 5-p Touring \$1,285

2500 5-p Sedan 1,285

2450 3-p Coupe 1,285

DIANA "St. 8"

2995 5-p Roadster \$1,795

2995 5-p Palm Bch. Rds. 1,995

3170 5-p DeL. Bro'm 1,995

3275 5-p De Luxe Sedan 2,195

3160 5-p Cabriolet 2,095

3640 7-p Sedan (135 in. W. B.) 2,695

3640 7-p Berline Sedan 2,895

3640 5-p Town Car 5,000

DODGE BROTHERS

2448 2-p Roadster \$ 795

2538 2-p Special Roadster 845

2567 5-p Touring 795

2642 5-p Spec. Touring 845

2497 2-4-p Sport Roadster 880

2617 4-p Sport Touring 845

2589 2-p Coupe 845

2632 2-p Spec. Coup. 895

2811 5-p Sedan 895

2883 5-p Spec. Sedan 945

2920 5-p DeL. Sedan 1,075

DUESENBERG

Straight "8"

3920 2-p Roadster †

3970 4-p Roadster †

3700 5-p Phaeton †

3980 4-p Sp. Phaeton †

4115 5-p Sedan †

4500 7-p Sedan †

†Manufacturers do not quote list prices.

DU PONT "E"

3700 4-p Roadster \$2,800

3850 5-p Touring 2,800

3850 4-p Coupe 3,200

4100 5-p Sedan 3,400

ELCAR

"4-55"

2560 5-p Touring \$1,095

2710 4-p Roadster 1,295

2900 5-p Coach 1,195

2850 3-p Coupe 1,295

2779 5-p Sedan 1,395

"6-65"

2780 5-p Touring \$1,295

2840 4-p Roadster 1,495

2980 3-5-p Landau R'dster 1,675

2779 5-p Coach 1,395

2980 3-p Coupe 1,495

2900 5-p Sedan 1,595

"8-81"

3675 7-p Touring \$2,265

3000 3-p Coupe R'dster 2,195

3620 3-5-p Landau R'dster 2,295

3590 4-p Coupe 2,095

3795 5-p Sedan 2,265

4245 7-p Sedan 2,765

ESSEX

"Six"

2260 5-p Touring \$765

2500 5-p Coach 695

2540 5-p Sedan 4d. 795

FLINT

"Z-18"

2525 5-p Coach \$ 960

2580 5-p DeL. Coach 1,075

"B-60"

2745 4-p Roadster \$1,360

2750 5-p Touring 1,260

2885 4-p Sp. Roadster 1,495

2890 4-p Coupe Roadster 1,495

3030 5-p Sedan 4d. 1,495

3010 5-p Brougham 1,450

"E-80"

(120 in. W. B.)

3335 4-p Roadster \$1,645

3245 5-p Touring 1,450

3395 4-p Sp. Touring 1,645

3500 4-p Coupe 1,850

3625 5-p Sedan 1,925

(130 in. W. B.)

3780 7-p Sedan \$2,125

FORD

With Starter, Dem. Rims and Balloon Tires

1655 2-p Runabout \$360

1728 5-p Touring 380

1860 2-p Coupe 485

1972 5-p Tudor Sedan 495

2004 5-p Fordor Sedan 545

FRANKLIN

"11"

2800 3-p Sport Road. \$2,690

2845 5-p Touring 2,635

2965 3-p Coupe 2,645

3-5-p Coupe 2,760

3175 5-p Sedan 2,790

4-p Victoria 2,790

5-7-p Sedan 2,840

5-p Oxford Sedan 2,865

3980 5-p Sport Sedan 2,910

3275 7-p Limousine 2,990

3135 7-6 Cabriolet 4,400

GARDNER

6B

3070 4-p Phaeton \$1,395

3030 4-p Roadster 1,395

3280 5-p Custom Bro'm 1,645

3210 4-p Landau R'dster 1,695

3280 5-p Imp. Sedan 1,695

3280 5-p Victoria Bro'm 1,695

8B

3350 4-p Phaeton \$1,795

3350 4-p Sp. Roadster 1,795

3260 5-p Custom Bro'm 1,995

3620 5-p Victoria Bro'm 2,045

3480 4-p Landau R'dster 2,095

3620 5-p Imp. Sedan 2,095

"80"

Roadster \$1,395

Seda n 1,695

"90"

Roadster \$1,995

Brougham 2,295

Sedan 2,295

Victoria 2,295

HERTZ

"D-1"

3587 5-p Touring

3720 5-p Sedan

HUDSON

"Super Six"

3395 7-p Phaeton \$1,250

3440 5-p Coach 1,095

..... Spec. Coach 1,150

3560 4-p Brougham 4d. 1,385

3685 7-p Sedan 1,495

HUPMOBILE

"A"

2620 5-p Touring \$1,325

..... 2-4-p Roadster 1,385

2800 5-p Sedan 1,385

2800 2-4-p Coupe 1,385

"E"

3300 5-p Touring \$1,945

3360 7-p Touring 2,045

3355 2-4-p Roadster 2,045

3465 2-4-p Coupe 2,335

3545 5-p Brougham 2,345

3545 5-p Sedan 2,345

3580 5-p Victoria 2,345

3580 5-p Berline 2,445

7-p Sedan 2,495

7-p Sedan Lim. 2,595

JEWETT

"6-45"

..... 5-p Touring \$1,150

2660 5-p Brougham 1,195

2760 5-p 4d. Sedan 1,295

JORDAN

"J"

2915 4-p Playboy Road. \$1,845

3200 5-p Sedan 1,915

3200 4-p Victoria 1,945

3200 2-4-p Sport. Coupe 2,195

3200 4-p Cus. Victoria 2,195

3200 5-p Cus. Sedan 2,195

Series "AA"

3470 5-p Sedan \$2,495

3470 4-p Victoria 2,495

KISSEL

"55"

(124 in. W. B.)

3020 5-p Phaeton \$1,585

3660 7-p Touring 1,685

3065 2-p Speedster 1,795

3225 4-p Tourster 1,795

3160 4-p Speedster 1,895

3190 2-p Speedster

(Enc.) 2,085

3275 4-p Speedster

(Enc.) 2,185

..... 2-p Coupe R'dster 1,795

..... 4-p Coupe R'dster 1,895

3300 5-p Brougham 1,695

..... 5-p Spec. Bro'm 1,795

3440 5-p Bro'm Sedan 1,895

..... 5-p Spec. Bro'm Sed. 2,095

(132 in. W. B.)

3590 5-p Bro'm Sed. DeLuxe \$2,585

4010 7-p Sedan DeLuxe 3,085

3640 7-p Berline Sed. DeLuxe 3,185

"75"

(131 in. W. B.)

3220 5-p Phaeton \$1,985

3630 7-p Touring 2,085

3275 2-p Speedster 2,195

3335 4-p Tourster 2,195

3360 4-p Speedster 2,295

3425 2-p Speedster

(Enc.) 2,485

3500 4-p Speedster

(Enc.) 2,585

..... 2-p Coupe R'dster 2,195

..... 4-p Coupe R'dster 2,295

3565 5-p Brougham 2,095

..... 5-p Spec. Bro'm 2,195

3760 5-p Bro'm Sedan 2,295

..... 5-p Spec. Bro'm Sedan 2,495

(139 in. W. B.)

3910 5-p Bro'm Sedan DeLuxe \$2,985

4080 7-p Sedan DeLuxe 3,485

4125 7-p Berline Sed. DeLuxe 3,585

LINCOLN

4760 2-p Sport R'dster \$4,500

4810 7-p Sport Touring 4,500

4880 4-p Sport Phaeton 4,500

4610 4-p Coupe 4,600

4885 4-p Sedan 4,800

4760 5-p Sedan 4,900

4890 7-p Sedan 5,100

4945 7-p Limousine 5,300

LOCOMOBILE

"Jr. 8"

3035 4-p Roadster \$2,150

3055 5-p Touring 1,785

3235 5-p Sedan 2,285

3330 5-p Brougham 2,285

"90"

4475 4-p Sportif \$5,500

4370 4-p Roadster 5,900

4680 4-p Victoria Coupe 6,950

4842 5-p Victoria Sedan 7,300

4615 7-p Cabriolet 7,500

4930 7-p Suburban 7,500

4615 7-p Brougham 7,500

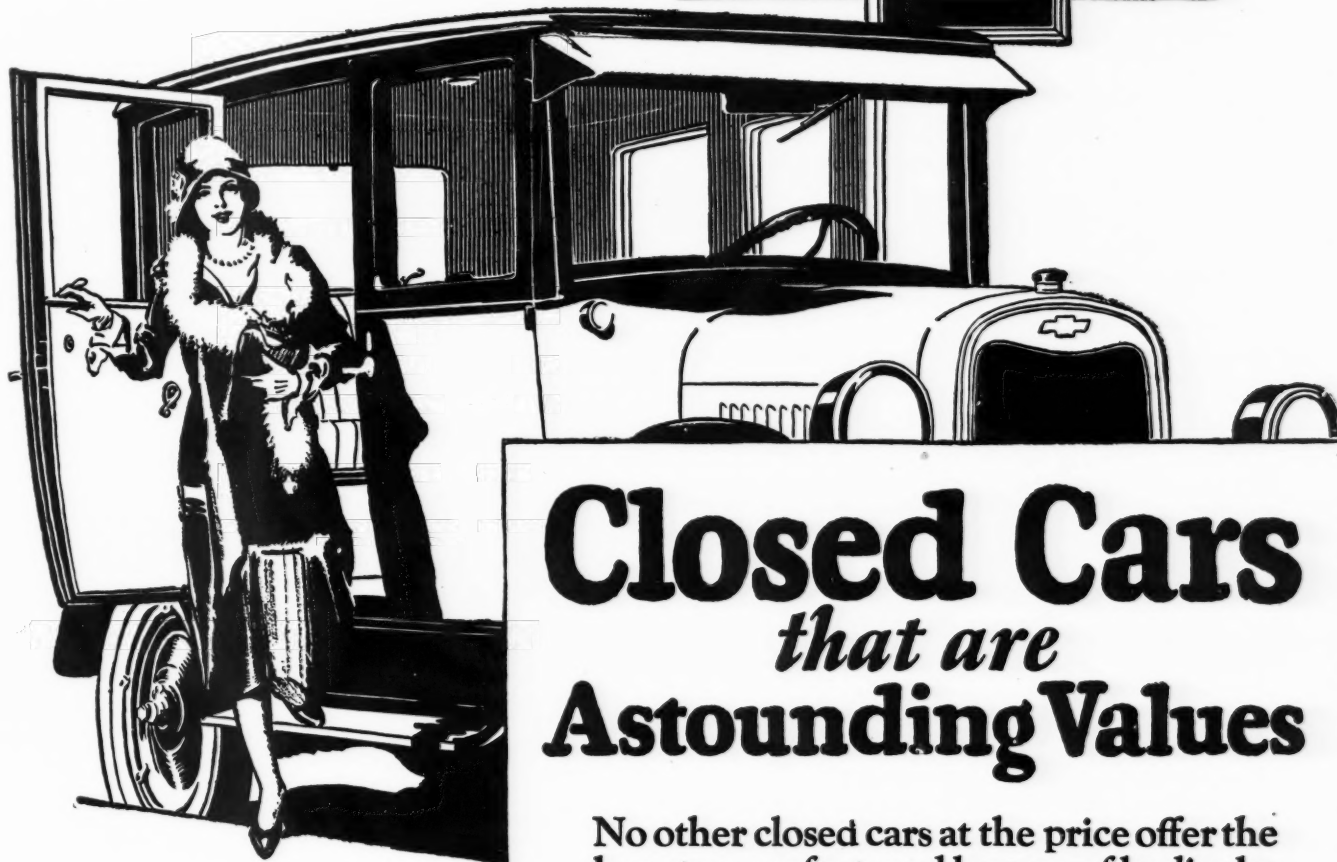
Mechanical Specifications of Current Passenger Car Models

This list comprises cars distributed on a national basis

[illegible]

(Continued on page 42)

for Economical Transportation



Closed Cars *that are* Astounding Values

No other closed cars at the price offer the beauty, comfort, and luxury of bodies by Fisher, with the acknowledged superiorities in craftsmanship, style, and safety.

No other closed cars at the price combine equal power and smoothness with equal thrift in use of gas and oil.

No other closed cars of comparable price offer dealers a more attractive opportunity for volume sales and substantial profits.

—and this is one of the big factors underlying the remarkable profit gains being enjoyed by Chevrolet dealers everywhere.

CHEVROLET MOTOR CO., DETROIT, MICH.
Division of General Motors

at these
Low Prices!

Touring or Roadster • \$ **510**

Coach or Coupe ••• \$ **645**

Four-Door Sedan ••• \$ **735**

Landau \$ **765**

1/2-Ton Truck \$ **375** 1-Ton Truck \$ **495**

Chassis Only Chassis Only

All prices f. o. b. Flint, Michigan

QUALITY AT LOW COST

(Continued on page 42)

Ze-Zerk
Zen-Zenth

Sia-Standard
T-T head

Pu-Pump
Q-Quarter elliptic

Ow-Oil cups with wick feed
P-Single plate

K-Cone
L-L head

G-Head and side
Gr-Grease cups

Co-Chain, Overhead shaft
Cu-Oil and grease cups

1/2-Inches-quarter mounting
A-Air

MAKE AND MODEL			ENGINE										ELECTRICAL SYSTEM			REAR AXLE			BRAKES			CHASSIS LUBRICATION			ABBREVIATIONS— NAMES OF MFRS. OF STOCK PARTS					
Wheel Base ¹ (Inches)	Tire Size	Decimals-Balloons	Model and Number of Cyls.	Kied H.P.	Valve Arrange- ment	Camshaft Drive	Piston Material	Dampers ²	Oiling System	Oil Cleaner ³	Cooling System	Thermostat ⁴	Radiator ⁵	Shutters ⁶	Carburetor	Air Cleaner ⁷	Ignition System	Generator and Starter Make	Clutch—Type and Make	Gear Set—Make	Universal—Type and Make	Type and Make	Gear Ratio	Foot—Type and Location	Hand—Type (= Optional)	4 Wheel Type	Steering Gear—Make	Rear Springs—Type and Length		
142	33x6.75	Own	48-6-41x55 ¹	48.6	525	L	He. C.I.	7	Y	P.F.	Pu.	Y	N	N	Bal.	N	Delco	Delco	Wes.	P.Own.	Own.	m-Spl.	Fl	3.50	B-F	I-R	M	Ros.	Pr-Ze	A-K—Atwater Kent
138	33x6.75	Own	90-6-37x55 ¹	36.0	372	L	Ch. C.I.	7	Y	P.C.	Pu.	Y	N	Str.	Str.	N	Delco	Delco	Delo.	P.Own.	Own.	m-Spl.	1/2 Est.	4.5	I-F	I-R	Se	Ros.	Pr-Ze	A-L—Auto-Lite
136	32x6.75	Own	75-6-33x55 ¹	33.5	340	I	He. C.I.	3	Y	P.F.	Pu.	N	N	Sch.	N	N	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/4	Var.	I-F	I-R	M	Gem.	Bowen	Al—Almetal
127	33x6.20	Wia.	4H-8-33x55 ¹	27.3	268	I	Ch. C.I.	3	P.F.	N	Pu.	N	N	Ray	Swan.	N	Delco	Delco	Delco	D.Long.	W.G.	m-Cle.	1/2 Tim.	4.27	E-F	E-T	H	Ros.	B&B—Borg & Beck	
131	33x6.20	Lyc.	8-33x54 ¹	33.8	299	L	Ch. C.I.	3	P.F.	N	Pu.	N	N	Swan.	Swan.	N	Delco	Delco	Delco	P.B.&B.	W.G.	m-Cle.	1/2 Tim.	5.11	E-F	E-T	H	Ros.	B-L—Brown-Laird	
131	33x6.20	Wia.	4H-8-33x54 ¹	33.8	299	L	Ch. C.I.	3	P.F.	N	Pu.	N	N	Swan.	Swan.	N	Delco	Delco	Delco	P.B.&B.	W.G.	m-Cle.	1/2 Tim.	5.11	E-F	E-T	H	Ros.	B-L—Brown-Laird	
131	33x6.20	Wia.	4H-8-33x54 ¹	33.8	299	L	Ch. C.I.	3	P.F.	N	Pu.	N	N	Swan.	Swan.	N	Delco	Delco	Delco	P.B.&B.	W.G.	m-Cle.	1/2 Tim.	5.11	E-F	E-T	H	Ros.	B-L—Brown-Laird	
113	30x5.25	Own	72-6-31x54 ¹	23.4	196	L	He. C.I.	4	P.P.C.	N	Pu.	N	N	Str.	Str.	N	Delco	Delco	Delco	P.B.&B.	W.G.	m-Spl.	1/2 Col.	4.90	E-F	E-T	H	Ros.	Car—Carter	
113	30x5.25	Own	72-6-31x54 ¹	23.4	196	L	He. C.I.	4	P.P.C.	N	Pu.	N	N	Str.	Str.	N	Delco	Delco	Delco	P.B.&B.	W.G.	m-Spl.	1/2 Col.	4.90	E-F	E-T	H	Ros.	Car—Carter	
110	29x4.75	Own	Con. Spec. 6-31x54 ¹	19.8	185	L	Ch. C.I.	7	P.P.C.	N	Pu.	N	N	Car.	Car.	N	Delco	Delco	Delco	P.B.&B.	W.G.	m-Spl.	1/2 Col.	4.89	E-F	E-T	H	Ros.	Cl—Climax	
108	30x4.75	Own	Con. Spec. 6-31x54 ¹	21.6	170	L	Ch. C.I.	7	P.P.C.	N	Pu.	N	N	Car.	Car.	N	Delco	Delco	Delco	P.B.&B.	W.G.	m-Spl.	1/2 Col.	4.89	E-F	E-T	H	Ros.	Cl—Climax	
121-127	33x6.00	Own	201-6-31x55 ¹	28.4	279	I	He. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.50	B-F	E-T	M	Gem.	Con—Continental	
112 1/2	31x5.25	Own	201-6-31x55 ¹	28.4	279	I	He. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.50	B-F	E-T	M	Gem.	Con—Continental	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I	Ch. C.I.	7	P.F.	Y	Pu.	N	N	Mar.	Mar.	Y	Delco	Delco	Delco	P.B.&B.	Own.	m-Spl.	1/2	4.67	B-F	E-T	M	Gem.	Delo—DeLor	
113	31x5.25	Own	OS-6-32x54 ¹	25.3	224	I																								



**Hyatt Quiet Bearings
are all plainly marked**

We are proud to put our name on Hyatt Quiet Bearings—as an emblem of good faith and a guarantee of quality. It is for your protection, as well as our own, that all genuine Hyatts are stamped “Hyatt U. S. A.”

HYATT

QUIET ROLLER BEARINGS

Ze-Zerk
Zen-Zenith
Var-Varies
X-Sleeve valve
Y-Yes
Sp-Spanish (lubrication)
Sp-Spur gear (camshaft drive)
Spe-Special make
ing rods and camshaft
PS-Splash with pressure
P&T-Combination Pump
Oc-Oil cups
OG-Oil and Grease Cups
Ov-Oil cups with wick feed
F-Three-quarter elliptic
K-Cone
L-L Head
G-Head and side
Gr-Grease cups
H-Horizontal (valves)
Ca-Oil and grease cups
D-Multiple disk
E-Full elliptic
A-Aluminum
B-Semi-steel

What the Fisk Dealer Thinks of Fisk

"Fisk is the fairest tire company I have ever done business with."

This is the statement most frequently heard from Fisk dealers.

It covers the cardinal principle upon which Fisk has built the lasting good will that exists between the Fisk Company and its dealers.

Constant adherence to this principle and the fact that it has built quality tires for twenty-eight years have placed Fisk in its present position.



Time to Re-tire
Get a FISK
TRADE MARK REG. U.S. PAT. OFF.

Do you know about the liberal Fisk dealer franchise? A post card sent today will bring full details by return mail.

The Fisk Tire Company, Inc.

Chicopee Falls, Mass.

FISK

TIRES



Auburn's 1927 Program

NO AMOUNT of talk can offset facts! Facts prove there are a few companies who have forged ahead of the rest in the past two years.

And Auburn's percentage of increase is the greatest of them all.

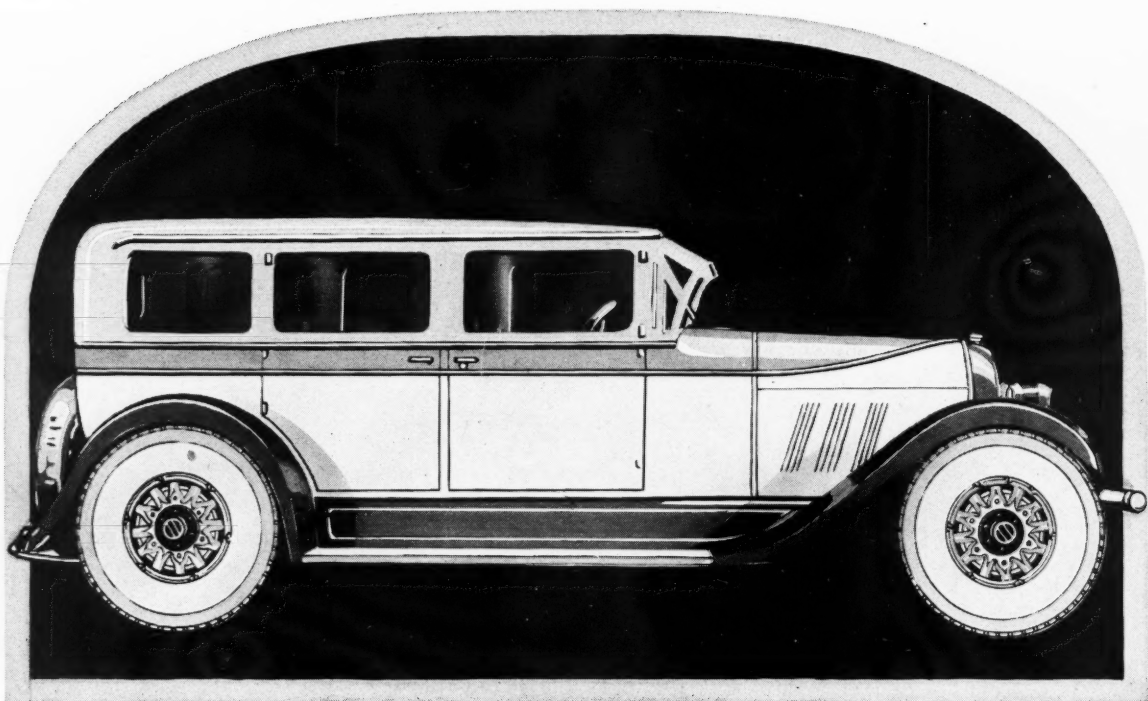
Though our success has been great Auburn has just started its upward climb. *Watch 1927.*

Our production capacity has been more than doubled to meet the demand for the new line of straight eights and sixes described on the following pages.

Our entire program has been built around the dealer and his success. Dealers who want to go forward with a company that looks upon their dealers as the most important link in their organization are invited to communicate with us.

E. L. CORD, *President*

AUBURN



SIX SEDAN \$1295

The Six—65 Miles per hour

120-inch Wheelbase—4-door Sport Sedan \$1195—Roadster \$1095—Sedan \$1295—Wanderer Sedan \$1345.

The Eight-77—75 Miles per hour

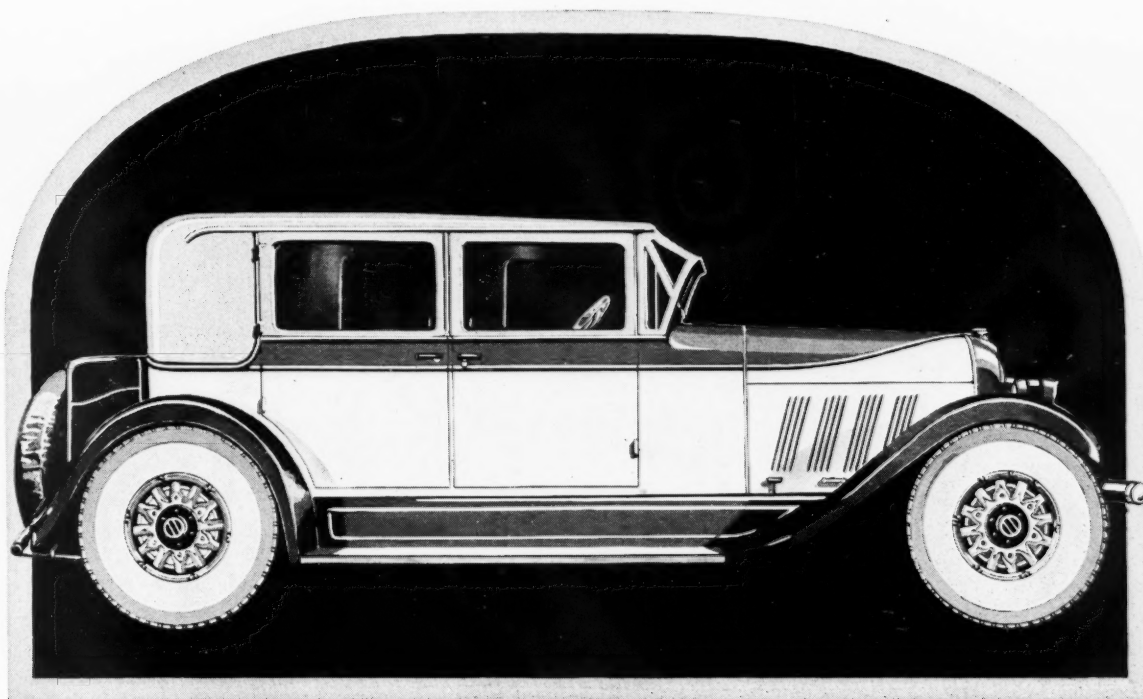
Straight eight 125-inch wheelbase—4-door Sport Sedan \$1495—Roadster \$1395—Sedan \$1695—Wanderer Sedan \$1745.

The Eight-88—80 Miles per hour

Straight eight 130-inch wheelbase—4-door Sport Sedan \$2095—Roadster \$1995—Sedan \$2195—Wanderer Sedan \$2245.
147-inch Wheelbase 7-Passenger Sedan \$2595.

*The last word in modern design and
engineering improvements.*

AUBURN



8-77 SPORT SEDAN \$1495

*A*UBURN believes the American people are not yet ready to sacrifice roominess and comfort in their motor cars for the saving of a foot or two of parking space.

The new Auburn models have ample wheelbase to provide room for a full quota of passengers and the utmost riding comfort.

With this new 8-77 Auburn establishes itself more than ever as the leader of the Eight-cylinder field. This new model will open a field of unlimited possibilities for Auburn dealers.

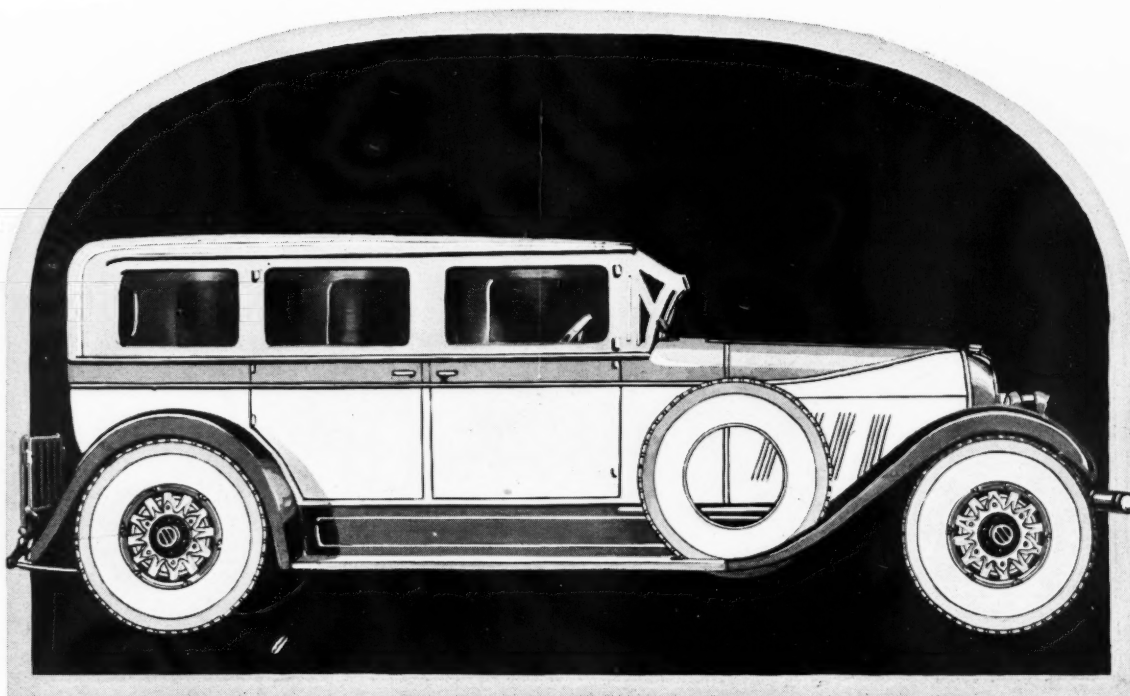
The Straight Eight is past the experimental stage. The public want it. The only thing that has restricted its sales so far has been the price.

We believe this 8-77 will be the biggest seller in the line.

Dealers will find in this new Auburn line-up the greatest opportunity of the last ten years for building up a volume of profitable business.

Roadster \$1395—Sedan \$1695—Wanderer Sedan \$1745

AUBURN



8-88 SEDAN \$2195

Isn't this what you have been looking for?

1. A Complete line of sixes and straight eights ranging in price from \$1095 to \$2595, with twenty different models. Auburn dealers will have a car for every need and at a price to fit every pocketbook.
 2. Profit possibilities second to none in the industry. The first seven months of this year the industry showed a gain of 12% over the same period last year. Auburn gained 220%. This gain was not made through increased dealer organization but through present dealers doubling and trebling their business.
 3. A Franchise carrying no commitments—you buy cars as you need them—not as we want you to take them. You run your own business. This is important. Auburn dealers do not have to take unprofitable business because the factory forces cars.
 4. Generous territory to enable you to get a real volume of business.
 5. Association with a factory where every major executive has had his training in selling cars at retail and as a dealer. Therefore is familiar with your problems and can help you solve them.
 6. Tremendous National Advertising campaign including a page every other week, 26 pages, in the Saturday Evening Post during 1927.
 7. Co-operation on local advertising.
 8. An opportunity for growth and expansion limited only by your own ability.
- Think of this line-up—with a six and two eights at these prices. Auburn dealers will be equipped to meet and overcome any competition they may encounter.

Territory is now being allotted. Yours may be open. Wire or write.

4-door Sport Sedan \$2095—Roadster \$1995—Wanderer Sedan \$2245—7-pass. Sedan \$2595

AUBURN AUTOMOBILE COMPANY, AUBURN, INDIANA

AUBURN



This patented spiral slot will build your piston replacement business

The biggest improvement ever made in piston design—that's what automobile experts have to say about the Kant-Skore *spiral* slot. This *spiral* slot is patented. It assures better piston replacements for your customers. And better replacements is what builds your business.

Here's why Kant-Skore replacements are better: The *spiral* slot curves *around* the piston wall. It takes up the contraction and expansion of the piston metal *evenly*, over its entire surface—gives a tighter fit with no danger of scoring cylinder walls.

As a result, automobiles that are equipped with Kant-Skores have more power *and use less gas*. And carbon troubles are almost wiped out. The special Kant-Skore alloy is strong as well

as light. It cuts vibration—makes for cooler, quieter motors.

Kant-Skores will help you build up the biggest replacement business in your territory. They cost very little to stock. Profits are excellent. See your distributor today, or write—

*The Kant-Skore Piston Company
Cincinnati, Ohio, U. S. A.

*We will be glad to consider distributors' applications for desirable territory still open.



KANT-SKORES ARE THE ONLY COMPLETE ALUMINUM-ALLOY LINE

More than 2,000 models and types

Nothing is More Important to Dealer or Jobber!

By tying up with the AC line, dealers and jobbers are affiliating themselves not only with the most powerful organization in the industry, but with a line which insures them enormous sales possibilities now and for the years to come.

AC Products are nationally known:

AC Spark Plugs are used as equipment on over 148 makes of cars, trucks, tractors and engines.

AC Speedometers are furnished as equipment on more than 50% of the output of present day production of cars.

AC Oil Filters are equipment on more than 50% of the production of cars being equipped with oil filters.

AC Air Cleaners are sent out as equipment on more than 60% of the cars that are equipped with air cleaners.

AC equipment, increasing steadily from year to year, is building a tremendous replacement business which will carry on as long as automobiles are made.

AC Spark Plug Company, FLINT, *Michigan*

AC-SPHINX
Birmingham
ENGLAND

Makers of AC Spark Plugs—AC Speedometers
—AC Air Cleaners—AC Oil Filters

AC-TITAN
Levallois-Perret
FRANCE

AC

SPARK PLUGS

AC

SPEEDOMETERS

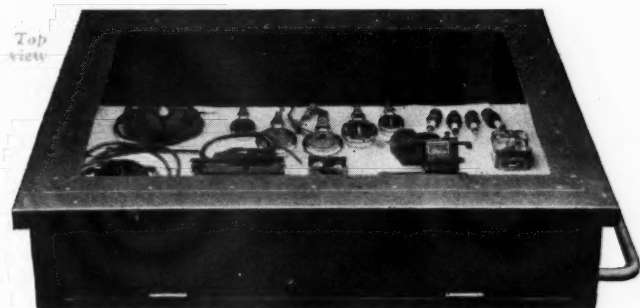
AC

AIR CLEANERS

AC

OIL FILTERS

for the Filling Station~an Accessories Display Truck that sells a lot of goods



*an ideal salesman! works
for you every minute of the
day easily moved about
a real money-maker*

THE Customer at the Filling Station seldom sees accessories displayed where he buys his gas and oil. But the Filling Station is an ideal accessories outlet. The Customer brings his car with him and his mind is made up to buy. How easy it is to work in a set of plugs, a windshield wiper or some tools when the driver says "Fill 'er up"!

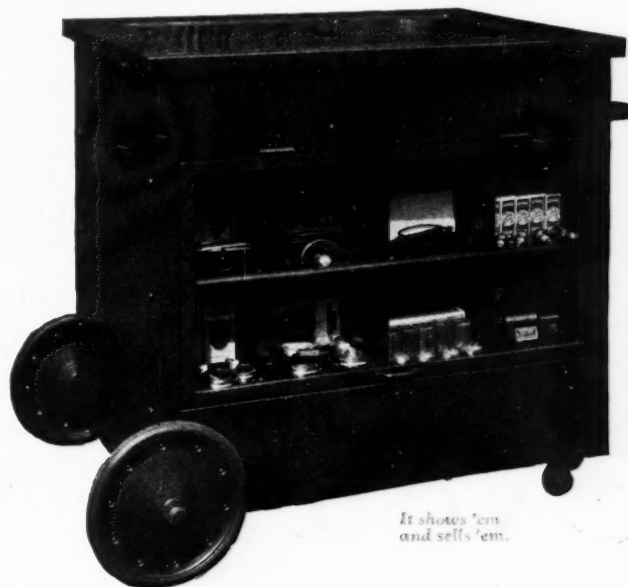
The newly designed Lupton Accessories Display Truck turns this situation to the advantage of both Filling Station and the Customer. It places the accessories where the Customer can see—and remember to buy.

A clear view of all items is insured by the glass front and top. At a distance, articles may be seen through the front: close by, they may be more carefully inspected through the top.

The Truck can be easily moved to the most advantageous position. It is fitted with 12 inch rubber-tired wheels in the rear. It turns and moves in any direction.

The shelves are amply large to display a collection of the best selling items. They are accessible through a hinged door swinging outward at the front of the Truck and through sliding doors at the rear. The front swinging door is provided with a secure locking device and the rear sliding door may be fastened with a padlock.

The Truck is strongly made of high grade steel and will practically never wear out. It is attractively finished in green lacquer which will withstand any kind of weather. A rain-proof cover to protect the top and sides is provided free of cost with each Truck.



*It shows 'em
and sells 'em.*

Size and Price

Length	36 7/16 inches
Height	36 inches
Width	25 1/4 inches
Shipping Weight	300 lbs.
Price	\$75.00

*All prices f. o. b. Philadelphia, Cleveland
or Chicago. Sold by jobbers everywhere.*

DAVID LUPTON'S SONS COMPANY

Sole Manufacturers Lupton Auto Parts Storage Systems

PHILADELPHIA & DETROIT

SALES OFFICE—2641 Woodward Avenue • DETROIT

LAPS SYSTEMS AND GARAGE EQUIPMENT • • • SOLD BY JOBBERS EVERYWHERE

"I WILL SELL THREE TIMES AS MANY"

"I will sell three times as many of the new SERIES 36 cars as I sold of the SERIES 33," said the most successful Pierce-Arrow salesman in America. Everywhere, everyone who sees the magnificent new SERIES 36 realizes that it is the finest of all motor cars beyond question. Selling for considerably less than the famous Pierce-Arrow SERIES 33, it offers unusual opportunities to dealers who have their eyes on profit. Wire or write for information regarding your territory. Your franchise, if you can secure one, will include the right to handle Pierce-Arrow's moderately priced SERIES 80—the sales sensation of its price class. * * * * *

THE PIERCE-ARROW MOTOR CAR COMPANY, *Buffalo, N. Y.*

NEW DUAL VALVE SIX
SERIES 36
PIERCE
ARROW

s a v i n g



B O S C H

Only two types needed to fit all cars -- think of the stock investment saving that means. The New Bosch Shock Absorbers not only save money, they save shelf space -- no slow sellers, no special types. Precision built by Bosch for the cars of today -- they meet every condition of road, saving cars from jars and jolts. Easily adjusted to balloon or regular tires. Always dependable.

For Fords (3-point Control Set) Complete \$16.50 per set
Medium Cars \$15.00 per pair. Heavy Cars \$20.00 per pair

AMERICAN BOSCH MAGNETO CORP.
Main Office and Works: Springfield, Massachusetts
Branches: New York Chicago Detroit San Francisco



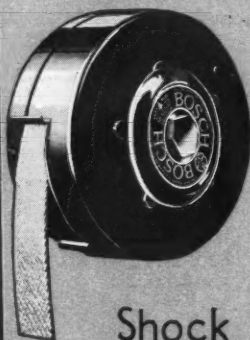
SHOCK ABSORBER

Profit Makers!

The BOSCH LONG LINE of Automotive Necessities



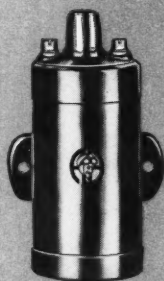
Electric
Windshield
Wiper



Shock
Absorber



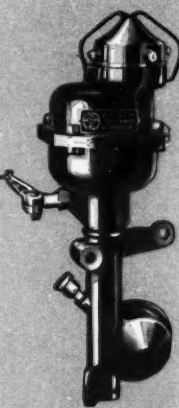
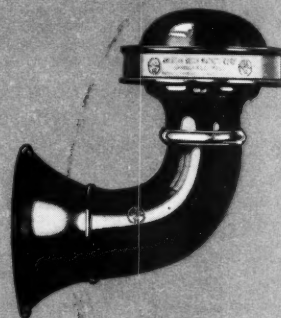
Spark Plug



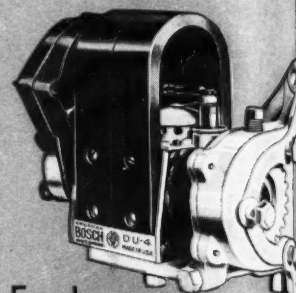
Ignition
Coil



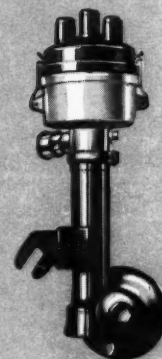
Electric Horn
Straight Model
and
Curved Model



Fordson
Governor



Ford Ignition Magneto
Fitting



Ford
Ignition
Type
600

HERE'S a complete line of Quality accessories—all made by one firm. It's no longer necessary to deal with one company selling shock absorbers, another selling spark plugs, etc. If you handle the Bosch Long Line, you have the selling rights to 10 popular accessories—high grade, dependable, moderately priced, and every one a real necessity. You have the Bosch reputation, prestige, advertising and dealer helps to aid you in selling. Liberal Bosch discounts to assure good profits. Your profits come from fast moving items which keep your capital turning over constantly. Bosch Automotive Necessities are called for by buyers who want merchandise of a known quality. There is a substantial profit in supplying that demand.

Ask About the Bosch Dealer Franchise

You can profit still more by becoming an Official Bosch Dealer. The requirements are simple—the benefits many. Some of the advantages you would get are: Special discounts on all Bosch material. Greater profits through increased sales. Personal assistance from Bosch salesmen. New markets—added prestige locally. Reference books, active sales literature, etc. Sales promotion and advertising service.

For full particulars, fill out coupon and mail TODAY.

AMERICAN BOSCH MAGNETO CORPORATION

Main Office and Works:

17-23 W. 60th St., New York
3737 Michigan Ave., Chicago

Branches

Springfield, Massachusetts

89-95 Hancock Ave. W., Detroit
1262 Post Street, San Francisco

Mail this Coupon TODAY

AMERICAN BOSCH MAGNETO CORPORATION
Send me full particulars about:

- | | |
|---|--|
| <input type="checkbox"/> Complete line | <input type="checkbox"/> Ford Ignition Systems |
| <input type="checkbox"/> Shock Absorber | <input type="checkbox"/> Fordson Ignition System |
| <input type="checkbox"/> Windshield Wiper | <input type="checkbox"/> Fordson Throttle Governor |
| <input type="checkbox"/> Spark Plug | <input type="checkbox"/> Bosch Radio |
| <input type="checkbox"/> Electric Horn | <input type="checkbox"/> Bosch Dealer Proposition |

Ship me the following units at quantity discount C.O.D.—

Firm Name.....
Street Address..... City..... State.....
Date..... Signature.....

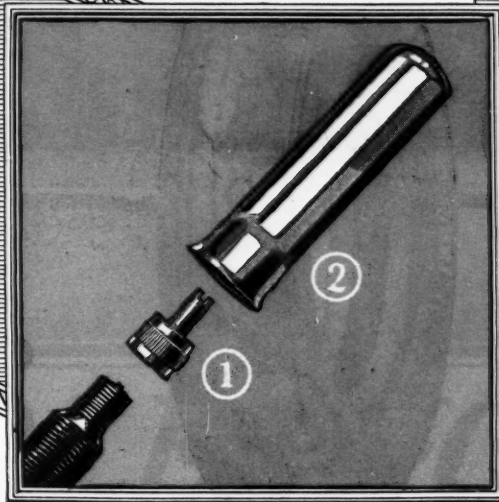


BOSCH RADIO

Bosch Radio Receivers are noted for their tonal quality, beauty of appearance and simplicity of operation. They are furnished in 5, 6 and 7 tube types with two cone type reproducers and a range of socket power units. They provide a profitable line of radio products with a perfect performance and price range.

Naturally they prefer INSTANT-ON

to
2 separate
caps



WHICH would a motorist rather do when he inflates a tire—just remove the Instant-On and go to it—or, first unscrew a dust cap and then a valve cap before he's ready for the air?

Instant-On is a Dust-and-Valve-Cap combined in one convenient unit. A turn or two—a pull—another turn and it's off. Reverse the action and it's on again.

Nothing could be simpler—or easier. Pliers are never necessary, for Instant-On

can't freeze or rust to the rim nut.

And it can't possibly leak air. Patented construction positively seals the tip of the valve stem.

Instant-On's convenience, and Instant-On's ability to hold the air in tires make it one of the best sellers in the entire accessory field.

THE DILL MFG. COMPANY · Cleveland, Ohio
Manufactured in Canada by Dill Manufacturing Company of Canada, Ltd., Toronto

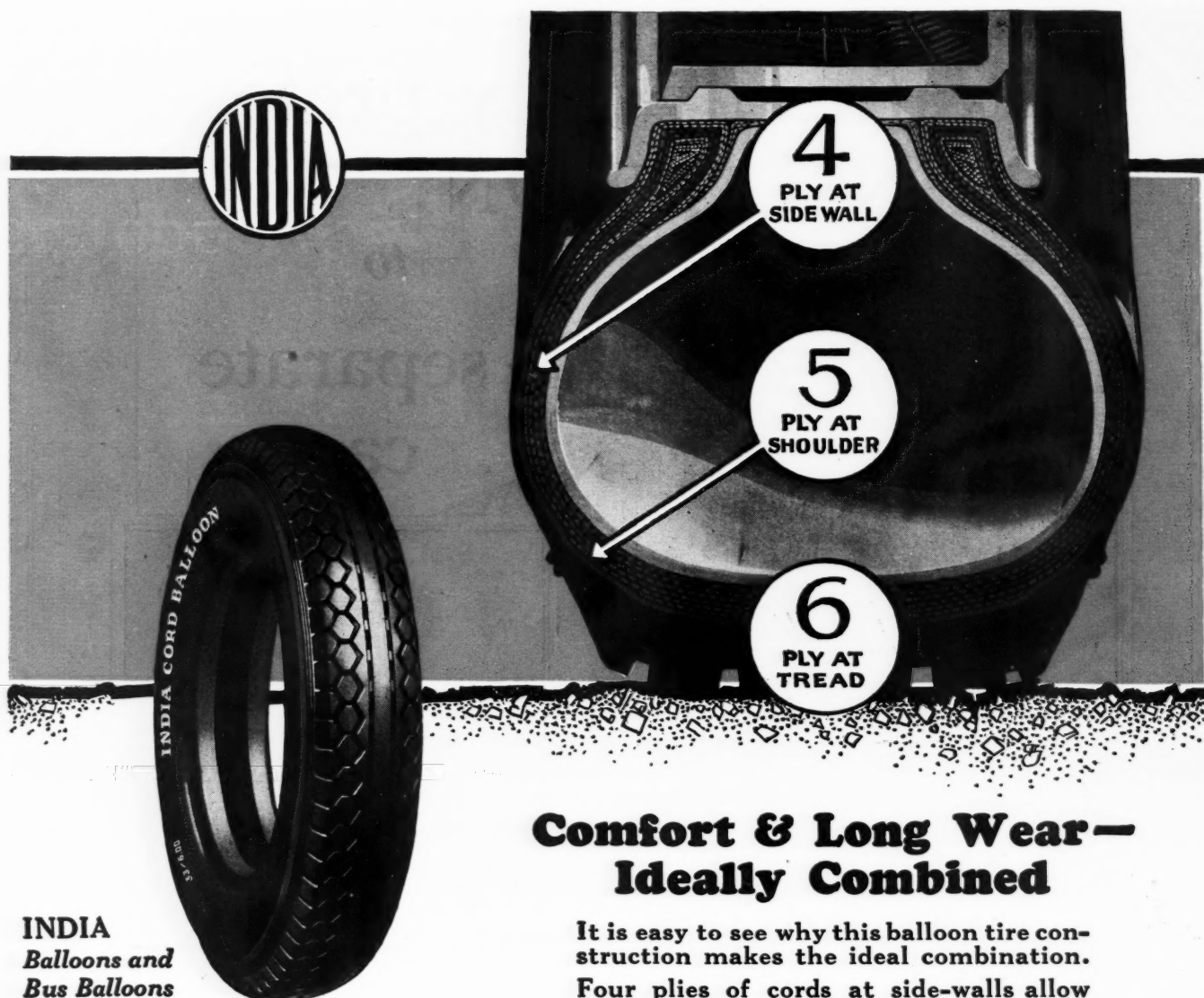
Any branch of the leading tire manufacturers or your jobber will supply you with one of the handy metal display stands, lithographed in beautiful colors. Price to you, \$8.00—complete with one dozen boxes of Instant-Ons, each box containing a set of 5 and retailing for \$1.00. Write us direct if your jobber cannot supply you.



DILL

Standard Tire Valves and Valve Parts





INDIA
Balloons and
Bus Balloons

Comfort & Long Wear— Ideally Combined

It is easy to see why this balloon tire construction makes the ideal combination.

Four plies of cords at side-walls allow the extreme flexing action under low air pressure, which puts comfort into balloon tires. Six plies of cords under the tread give the necessary protection against punctures and road wear.

INDIA automobile balloons and bus balloons (with 6-8 plies, etc.) have proved the value of this INDIA patented construction.

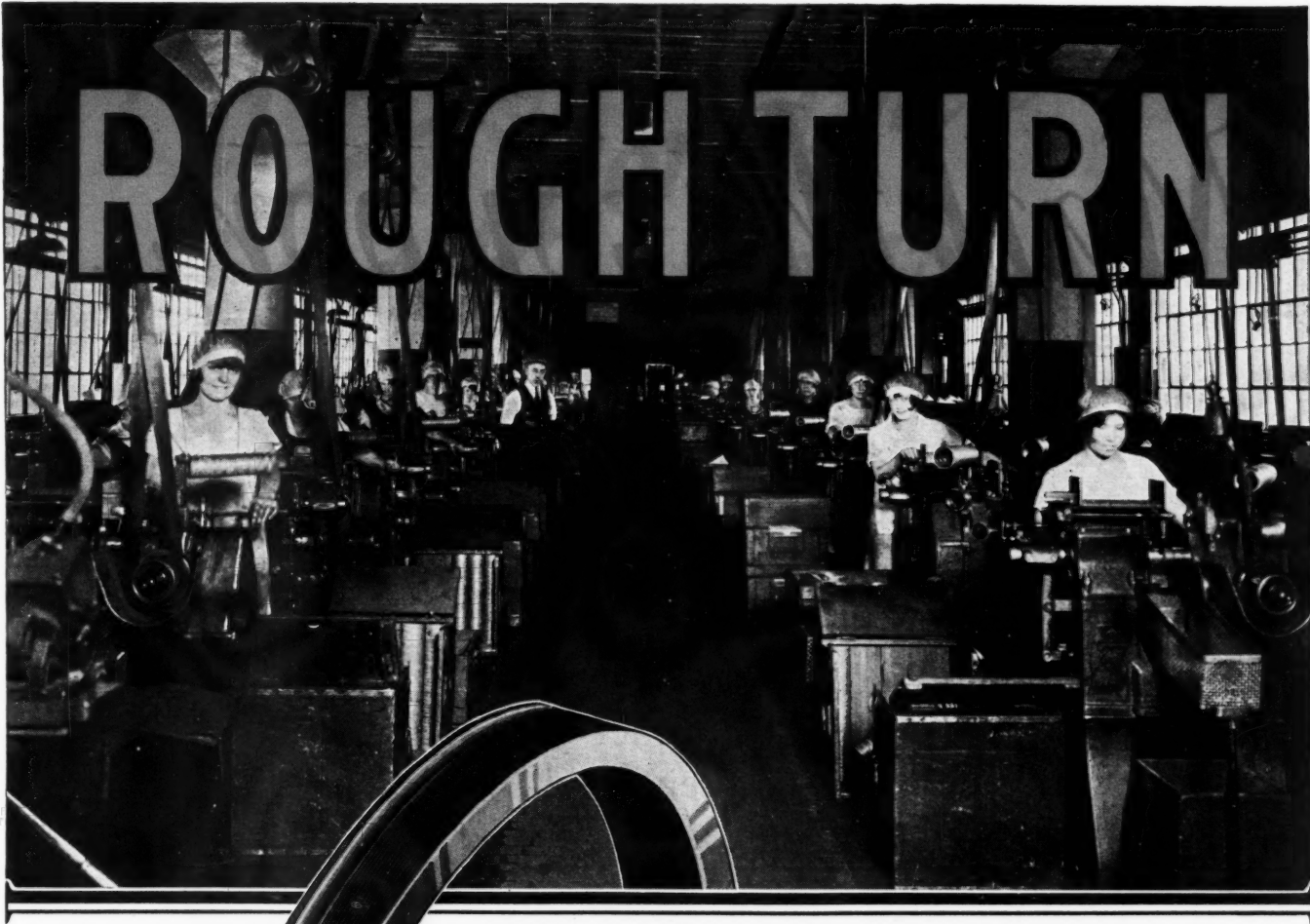
Go to an INDIA dealer and see how the INDIA balloon is made. Try one—with a True-Blue (HEAT-PROOF) Inner Tube. You'll then understand better why it is that INDIA balloons give you the utmost *uninterrupted* mileage you can buy.

The INDIA dealer franchise is an extremely valuable concession on which to build a successful tire business. Inquiries are solicited from men or concerns who may be interested in this franchise for certain open territories.

INDIA TIRES



INDIA TIRE & RUBBER CO., AKRON, OHIO.



ROUGH TURN

NO-LEAK-O Piston Rings

In this department rings are given the first rough turning operation on the periphery, each ring being turned individually by our own process on patented machines. This is done before joint is cut, to guarantee absolute concentricity and yet retain the skin of the casting. Two vital features—concentricity and lasting resiliency.

To successfully withstand all tests over a long period is really the answer to the goodness of any product.

No-Leak-O Piston Rings have done this year after year and as a result have consistently grown in popularity.

The famous 45° angle groove which functions so efficiently, by constantly refilling with fresh oil and forming a positive seal against loss of power, is also responsible for minimizing crank-case dilution and carbon deposits.

Service Division—Oil Ring Department

No Gas Can Pass This Groove Because It Seals with Oil.

The Piston
RING COMPANY
Muskegon, Michigan

Mail the coupon **NOW**

One of the easiest ways to get in touch with the manufacturer of a product you should sell, is to tear out his coupon, fill it in, and mail it.

Reading an advertisement is only the first step toward money making. Inquiring is what brings about results.

MOTOR AGE
5 S. WABASH AVE.
CHICAGO . . . ILL.



*Here
it is!*

*That Sensational new car ~
America's first
European-type Eight-in-line!*

*The most
Colorful
Custom-Style Bodies
in America
— a tremendous
selling asset!*

*A marvelous motor!
Double drop frame
Safety-chassis!
Low center
of gravity!*

*A
full-size
Quality-built
4 Door Sedan
at
\$1695*

*Other Prices
Range from*

\$1395

*The lowest priced
Eights-in-line
on the market
today!*

*Safety
Speed
Stamina*

— and a widened sales horizon for dealers

An Eight-in-line at \$1,395-

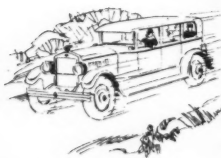
So sensational in appearance, performance and price that it will tear the Six market wide open

That's what the new Gardner Eight-in-line Series 80 means to the Automobile Trade!

Developed after nearly three years of constant experiment and hundreds of road tests, this revolutionary new car represents such a remarkable advance over anything you have ever seen that it will dictate the trend of tomorrow's engineering and prove itself cock-o'-the-walk on America's hills and highways.

Experienced car buyers, live dealers and automotive engineers already know that there is no substitute for Eight-in-line performance. But now, for the first time in all automobile history, a car which sells at the price of an average Six provides all the thrilling brilliance of Eight-in-line performance. More than that, it ushers in an amazing new kind of motoring enjoyment—an astonishing freedom from nervous and physical strain.

The minute you see this new-type car, you will realize that it introduces many proved features heretofore found only in high-priced American and European cars—features which have never before been grouped together in any car selling at the new Gardner's sensationally low price.



Drive at spirited, lightning speed with a feeling of safety, of comfort, of true relaxation.

You'll experience an entirely new feeling when you drive this new-type car. It is so utterly different—so infinitely more pleasing than anything you (or anyone else) have ever known—that mere words cannot describe it. It is



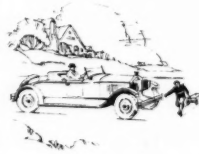
Takes sharp turns at speeds that would turn over an old-type car.

A Statement by the Chief Engineer

For nearly three years we have been working in secret to develop an Eight-in-line combining the most advanced engineering principles of the finest American and European practice... a car which, measured by any previous standard, would represent a great advance over anything known in this country or abroad. We determined to defer announcement of this revolutionary car until we should be ready to stake our reputation on its ability to dictate the performance standards of American highways and to set the style for America's smartest boulevards. We are ready to announce the Gardner Eight-in-line Series 80.

L.C. Freeman

unexplainable! Inspired though we are in writing about it, you must take the wheel yourself—drive it yourself—to fully comprehend and appreciate it.



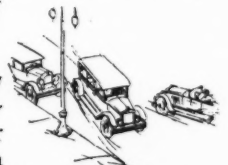
Stops—well, on a dime—almost.

Spectacular, in an entirely new body and chassis design.

There's new animation in every line. See it. Drive it. Measure its results. Superla-

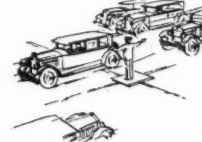
tives, more superlatives, and still we would fail to impress its revolutionary departures on your mind.

There's a thrill, a new fascination, in rounding sharp corners or even S curves at a speed that would ordinarily turn over an old-type car. But it's done in safety with the new Gardner Eighty. Without the slightest hint of sidesway, rolling or slipping!



New steerability, new flexibility, new nimbleness, make it a delight to handle even in heavy traffic.

This safety, this physical and mental ease of body and mind, this incomparable comfort and true relaxation, is made possible by scientifically tilted seats, double-drop frame, tubular cross-members, and low center of gravity.



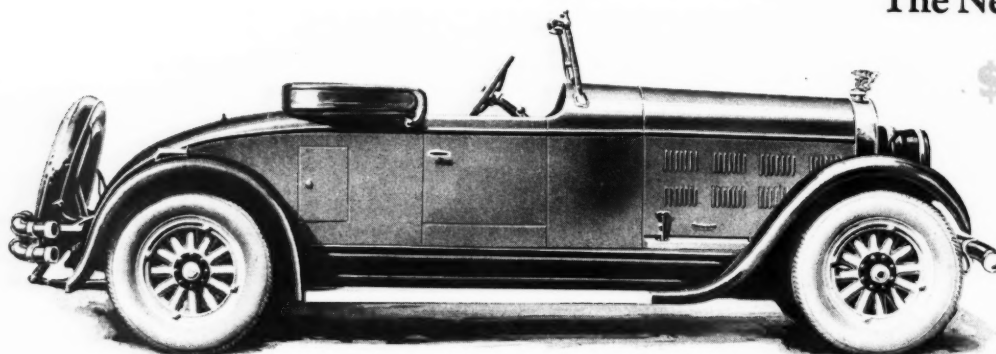
Gets away in a flash, while drivers of other cars gasp in amazement.

Spirited, lightning speed flashes... unusual roadability... performance unlike anything in its class! You'll say it's in a class by itself. Again we say, make no mistake—the speed is there! The power is there! The trigger-quick acceleration is there! But beyond that there is a wonderful feeling of safety made possible only by the remarkable roadability of this new Gardner Eight-in-line Eighty!



So low a man 5 feet 9 inches tall can see clear over the top.

And on top of these are other distinctive achievements, developed and perfected by the advanced engineering practice which, combining the best of American



The New Series 80 Roadster

122-Inch Wheelbase

\$1,395

F. O. B. ST. LOUIS

The New GARDNER

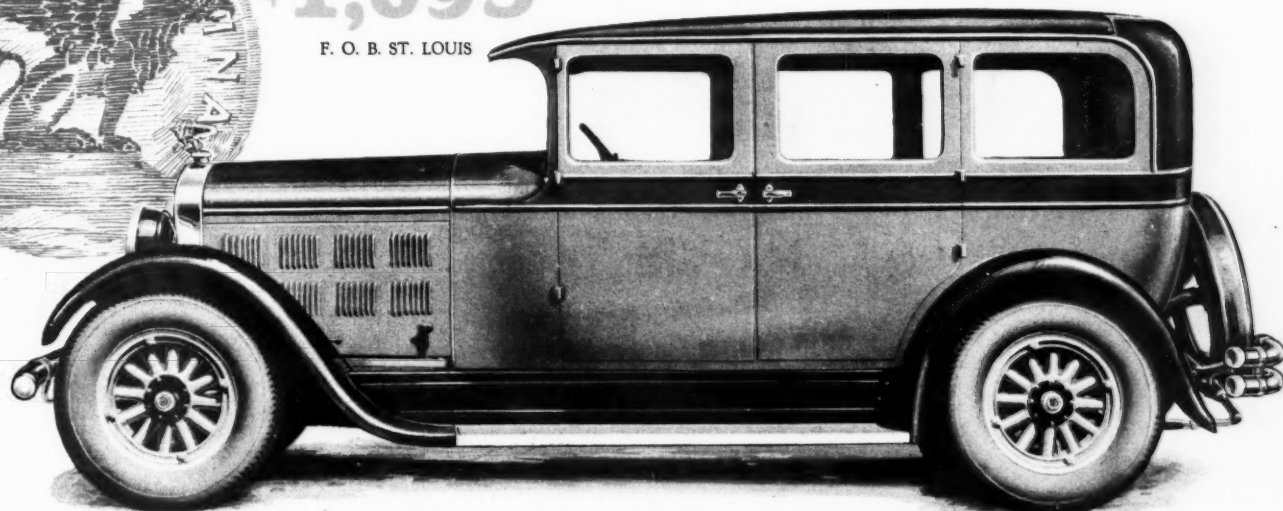
The New Series 80

4-Door Sedan

\$1,695

F. O. B. ST. LOUIS

Series 80



and European accomplishments, made possible this revolutionary new-type car.

With one wheel ten inches above the others, all doors open and close easily, due to its new-type, rigid chassis. Parks in space old-type cars pass by. Turns in a few feet. Ease of steering without equal. Nimbleness—scoots in and around traffic with unerring flexibility. Stops—well, on a dime—almost!



Built for narrow streets and short turning radius.



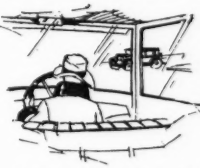
Hills? It laughs at hills—and walks right up in high.

The Gardner Motor Company, with over fifty years of successful manufacturing to its credit... pioneer of the Eight-in-line... goes on record

with the statement—the challenge, if you please—that there is no other car with such sensational performance, such riding comfort, such roadability. No other car that meets the modern traffic and good-road trend as does this new Gardner Eighty—America's first European-type Eight-in-line!



Scientifically tilted seats provide perfect relaxation—real comfort.

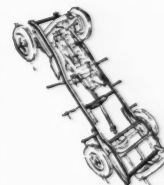


At all times—a clear view of the road ahead—and to either side.

The time is not far distant when the new Gardner Eight-in-line Eighty will be in the mind of every prospective buyer who has \$1,200 to \$2,000 to spend for a motor car. Think of the appeal it will have for those buyers...

With its colorful new

bodies... its double-drop frame... its low-hung safety chassis... its low center of gravity... its steerability, flexibility and other engineering advancements.



Tubular cross-members provide a chassis of unyielding rigidity.

And a price no higher than that asked for an average Six!

These are merely the high-lights of the most revolutionary car introduced in this country in the last decade—America's first European-type Eight-in-line—the pace-making car which is going to tear the Six market wide open—the new Gardner Eight-in-line Series 80.



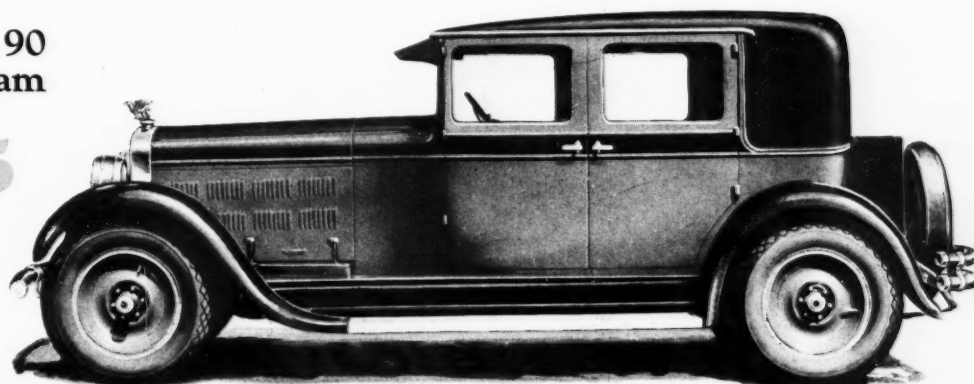
Park one wheel 10 inches higher than the rest—and open any door as easily as though parked on level ground.

The New Series 90 Custom Brougham

130-Inch Wheelbase

\$2,295

F. O. B. ST. LOUIS



*A fine Car~
the right
price!*

**A liberal net
profit on every
sale or trade-in**

Gardner has not only developed and perfected America's first European-type Eight-in-line—and made it available at a price that will knock the socks off competition—but has also vastly improved the Gardner Eight-in-line Series 90 of 130-inch wheelbase, adding new beauty, new luxuries and refinements to this now famous car.

With these two Eights-in-line Gardner dealers will have the jump on all competitors in the quality field. They will have the new Gardner Eight-in-line Eighty to win wise buyers who have \$1,395 to \$1,795 to invest in a motor car—the Improved Gardner Eight-in-line Ninety at \$1,995 to \$2,345 for the buyer who wants a bigger car which provides the utmost in luxury, in beauty, in style and performance.

Moreover, they'll have a dealer agreement which includes a bigger discount—and that bigger discount assures the Gardner dealer a Liberal Net Profit on Every Sale or Trade-in.

Upon appointment, the new Gardner Eight-in-line Eighty and the Improved Gardner Eight-in-line Ninety will be shown to interested distributors and dealers at the factory. If you cannot come to St. Louis we will arrange for you to see these two sensational cars and get all the facts about Gardner's amazing dealer profit proposition if you will merely mark and mail the Opportunity Request below.

THE GARDNER MOTOR CO., ST. LOUIS, U. S. A.

**Mail this coupon
for the full story of
this Sensational
new car**

Sales Mgr.
The Gardner
Motor Co., Inc.
St. Louis, U. S. A.

Please send me the complete story of the new Gardner Eight-in-line Eighty and the Improved Gardner Eight-in-line Ninety; also the unique dealer proposition which assures Gardner dealers a Liberal Net Profit on Every Sale or Trade-in.

Name

Address

City State

(TO BE HELD STRICTLY CONFIDENTIAL)

Specifications—Series 80

MOTOR—L-head Gardner-Lycoming Eight-in-line. 2 1/4-inch (69.85 mm.) bore—4 1/4-inch (120.65 mm.) stroke. 226-cubic-inch (3.702 liters) piston displacement. 70 horsepower—developed.

STEERING GEAR—Improved cam-and-lever type. Semi-irreversible.

GASOLINE SYSTEM—Vacuum feed from large tank at rear of chassis. Schebler carburetor with Swan manifold to equalize distribution of gases.

COOLING SYSTEM—Thermostatic control. Centrifugal pump. Water forced completely around all cylinders. Pedders cellular-type radiator. 4-blade, self-oiling fan. Fan mounted on adjustable bracket.

CLUTCH—Easy-operating Borg & Beck dry disc.

TRANSMISSION—Selective sliding gear type. Nickel steel gears. Three speeds forward—one reverse.

FRONT AXLE—Drop-forged I-beam, extra heavy for front wheel brake equipment. Tapered roller bearings in wheels.

REAR AXLE—Semi-float type with one-piece pressed steel housing. Nickel spiral bevel gears. Tapered roller bearings thruout.

SPRINGS—Special balloon type—semi-elliptic.

BRAKES—Enclosed brakes on all four wheels. Perfectly balanced equalization. Emergency brake operates on transmission.

ELECTRICAL SYSTEM—Remy-Delco ignition. Two-unit starting and lighting. Prest-O-Lite battery.

LUBRICATION—Full force feed to main and connecting rod bearings by means of gear-driven pump. Pressure gauge on instrument board.

INTERIOR FINISH AND UPHOLSTERY—Sedan—Genuine mohair in French plaits; latest design silver finish hardware; Old English walnut paneling thruout; dome light; distant control locks on doors; pull-up ropes; silk window curtains; arm rests. Roadster—Genuine leather to harmonize with body finish.

OUTSIDE FINISH—Two-tone lacquer.

WHEELS—Wood, to conform to body color.

WHEELBASE—123 inches—3096.44 mm.

FRAME—Extra heavy gauge pressed steel—7-inch section. Tubular cross-members.

TIRES—30 x 5.25 (762.002 x 133.249 mm.) full balloons.

STANDARD EQUIPMENT—Clear-vision ventilating windshield. Gasoline gauge on dash. Clear-vision bodies. Chase mohair upholstery of finest quality—French-type pleating. Walnut panels on instrument board and window ledges. 4-wheel brakes. 30 x 5.25 balloon tires. Special vibration dampener. Headlights with double filament bulbs. Rear-vision mirror. Stop light. Automatic windshield wiper. Distant control locks for all doors. Butler silver-finished hardware. Two-tone lacquer paint. Nickel radiator. Handsome Griffin insignia on radiator cap. Instruments grouped under single glass panel on dash and indirectly lighted. New-type automatic ignition lock. Genuine full walnut steering wheel. Heat indicator on dash. Pedco theft-proof numbering system with use and occupancy insurance.

DELUXE EQUIPMENT—Tire cover. Snubbers all around. Bumpers of handsome, heavy construction front and rear. Automatic centralized chassis lubrication system (manufactured by Alemite). Air cleaner. Gasoline strainer. Oil filter. Thermostatic heat control. 6-inch balloon tires.

Advertisements like this continue to tell car-owners the story of Willard Quality and Willard Service—a story of battery dependability combined with low up-keep.

WILLARD STORAGE BATTERY COMPANY
Cleveland, Ohio
U. S. A.



Rubber cases used in Willard Batteries are tested with a current of 18,000 volts. Only perfect cases and cells can pass, for this test burns holes right through imperfect ones.

that's
Quality

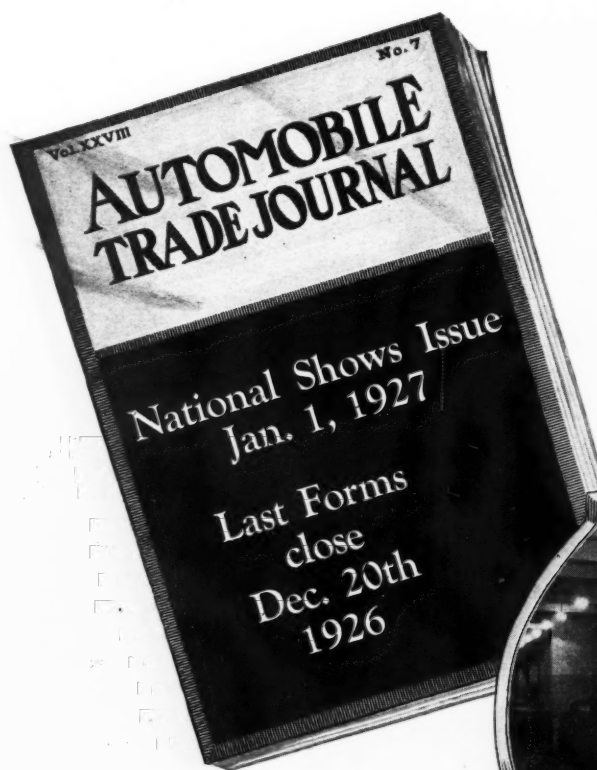


In the same way that Willard quality protects you against leaky cases and cells, our standards of battery inspection insure your receiving full measure of useful battery life in your car.

that's
Service

The
Willard Battery
men

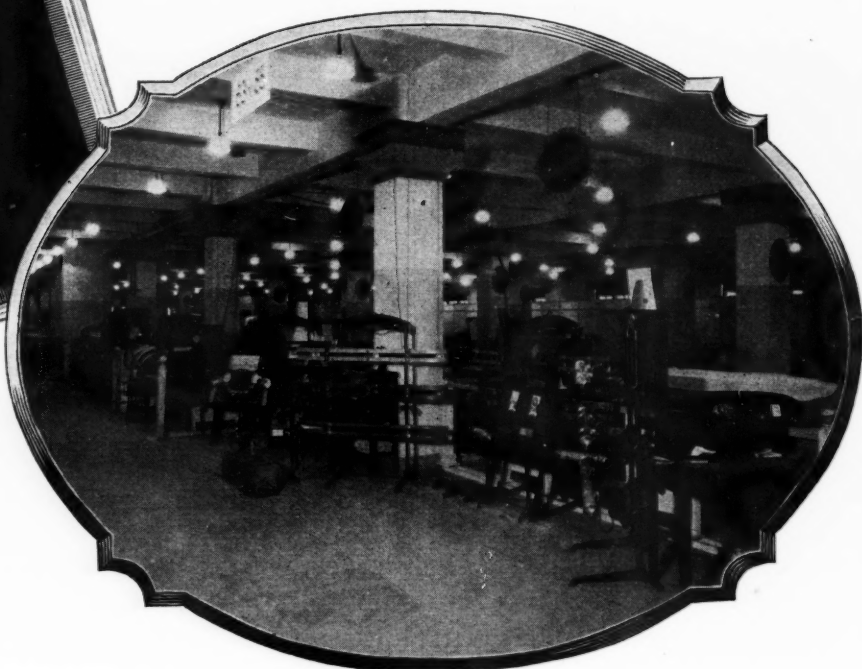
We Service All Makes
and Sell Willards for
All Cars—for Radio, too.



AUTOMOBILE
TRADE JOURNAL
Chestnut and 56th Streets
Philadelphia

\$7,500,000,000

Automotive Market



100,000 COMPLETE COVERAGE

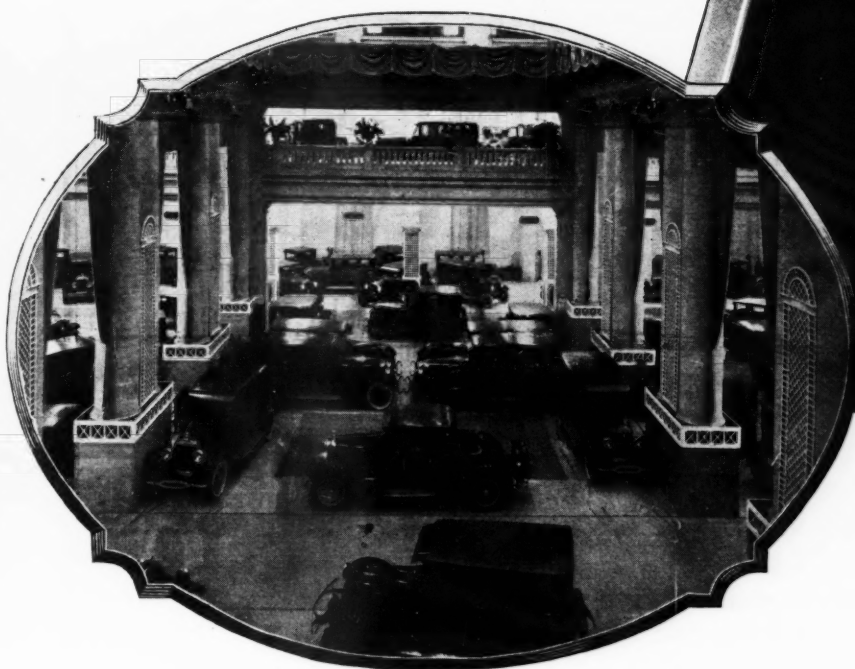
Consider the following figures in connection with automotive merchandising possibilities—just a few of a great many:

3,300,000 cars in 1926	not "factory equipped" with—front bumpers
3,500,000 cars in 1926	not "factory equipped" with—rear bumpers
3,150,000 cars in 1926	not "factory equipped" with—shock absorbers
1,720,000 cars in 1926	not "factory equipped" with—rear view mirrors
2,450,000 closed cars	not "factory equipped" with—heaters
2,900,000 cars in 1926	not "factory equipped" with—engine heat indicators
2,450,000 cars in 1926	not "factory equipped" with—traffic signals
3,500,000 cars in 1926	not "factory equipped" with—cigar lighters
3,400,000 cars in 1926	not "factory equipped" with—Clocks
3,420,000 cars in 1926	not "factory equipped" with—spare tire lock
Extremely small percentage	of open models equipped with—windshield wings

— [Chilton Class Journal

and—100,000

*Dealer
Outlets*



MOTOR AGE
5 So. Wabash Avenue
Chicago

100,000 TRADE COVERAGE

Megaphone your message to the multitude and a shockingly small percentage of those within ear range will know what it is all about—and will care less.

Tell the same story to an exclusive audience of dealers, garage owners and service men and you have 100 per cent interest.

Your advertising in the National Shows issues of *Automobile Trade Journal* and *Motor Age*, with combined circulation of *more than* 100,000 copies, will reach and cover the Trade—the whole Trade—and nothing but the Trade. Advertising rates on request.

Company Publications] ~



As you turn these pages

You are not prompted by idle curiosity, nor are you seeking entertainment for a few unoccupied moments.

Unknowingly, you exemplify our story. You are seeking and gaining information concerning your trade—quite logically—in the Business Paper which has been created to serve it.

An A. B. P. paper, such as this one, brings you unbiased up-to-the-minute news concerning the trend of trade activities. It supplies you with organized knowledge and tested ideas, scientifically gathered and sifted by leaders in your phase of business.

Its knowledge is nation-wide and pertinent. The quality of its information—both editorial and aditorial—is governed by its pledge to consider first and foremost your interests and to maintain the high standards of practice in all phases of its activities.

Through habitual reading, you will reap full benefit from this, your business paper.

THE ASSOCIATED BUSINESS PAPERS, Inc.
Executive Offices: 220 West 42nd St., New York, N.Y.

A. B. P.

An association of none but qualified publications reaching the principal fields of trade and industry.

MOTOR AGE is a member of The A. B. P.



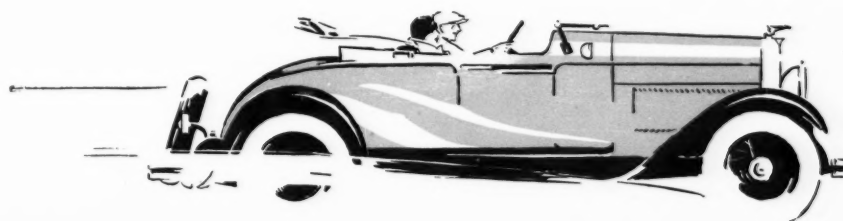
COMPANION TO THE MARMON 75

To date

2,927 dealer inquiries

12,841 retail inquiries

— and as yet the car has not been
announced to the public ~ indicating quite clearly
that the country regards Marmon's introduction of
the first truly fine small car as the most logical new
step in motor car development ~ ~ ~ ~



Oyes

the little **MARMON**

- does 70 honest miles per hour with ease
- gives 20-22 miles on a single gallon of gas
- delivers more power per cubic inch of piston displacement than any other passenger car engine
- equals the large Marmon in riding ease
- sells for less than \$2,000 (on all standard models)
- is manufactured by Marmon in Marmon factories

Although the Little Marmon will not be publicly presented until the New York Automobile Show, January 8, Marmon now offers interested dealers the opportunity of seeing and driving the car at the factory. Please write or return the attached blank for prior appointment.



Companion to the Marmon 75

MARMON MOTOR CAR COMPANY

Indianapolis, Indiana

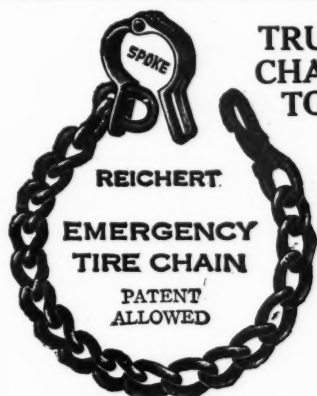
We are interested in seeing the Little Marmon at the factory prior to the public announcement.

Firm Name _____

Address _____

By _____

City _____ State _____



TRUCK
CHAINS
TOO



One set consists of 12
Units—6 Units in a sack

Reichert's
Imperial
Emergency

Mud and Snow Chains Sell

Four-wheel brakes and balloon tires may help prevent skidding, but they never pulled a car out of mud or snow when it was thoroughly stuck. REICHERT'S Imperial Emergency Mud and Snow Chains *do!* That's why they sell so fast. Always in sets of 4.

STANDARD TIRE SIZES			
Size 1 1/4	—For 3 and 3 1/2 inch tires	Set	\$3.90
Size 2	—For 4 and 4 1/2 inch tires	Set	4.50
Size 3	—For 5 and 5 1/2 inch tires	Set	5.60
(Note Size 3 will also fit 4.95, 5.25, 5.75 Balloon Tires)			
BALLOON TIRE SIZES			
Special 1 1/4 A	—For 4.40 tires	Set	\$4.20
Size 3	—For 4.95, 5.25 and 5.75 tires	Set	5.60
Size 4	—For 6.20, 6.60 and 6.75 tires	Set	6.10
Size 5	—For 7.30 tires	Set	6.70

IMPORTANT! State Size When Ordering
Here is a product with liberal discounts, and a tremendous field for sales—both passenger car and truck. You can make money with it this winter. Write.

If Your Jobber Can't Supply You—Order Direct

IMPERIAL BIT & SNAP CO.

Racine

Wisconsin

Announcing Delta-Levolier Dimming Switch

MAKES DIMMING a joy. Mounts on spoke of steering wheel near rim. No need to move either hand from wheel. Change brights to dims with a flip of the thumb. Dims headlights and turns on roadlight—or any combination you want—in the same flip. Fascinating to operate; put one in the hands of a motorist and you've made a sale.

Drivers who use it consider it the handiest accessory they have on their cars. Fool proof. Reliable. Won't rattle. Fully guaranteed. An exclusive Delta product. Write for full particulars.



DELTA ELECTRIC
COMPANY
903 Delta Bldg., Marion, Ind.

**Delta-
Levolier**

\$2.75
List
Canada \$3.70

"EXPERIENCE"

WHEN you go to an insurance man with an unusual risk that you want covered you are generally told, "I'll look up our experience on that and let you know what we can do." He then gets in touch with a central bureau where his own and perhaps other companies pool their information on such risks, and he finds out just how such cases have worked out in the past. With the facts in hand he is then prepared to handle the situation intelligently.

One of the reasons MOTOR AGE is published is to do the same thing for the automobile dealer that the central bureau does for the insurance man. It is to make available the experience of the trade—to show you how other men have met problems like your own, and how their methods have worked out.

Fortunately, there is an ample body of "experience" to be found in the automotive field. The only problem is that of placing it in the hands of the average dealer, and that is what MOTOR AGE is doing. Each week we present one or more articles showing just how some particular dealer met and overcame a typical situation and in our "Clearing House" is to be found the information given men who approached us with particular problems of which they wanted to get the experience of others.

You, too, can keep in touch with the experience of your trade by reading MOTOR AGE carefully each week. And when you need help in meeting some particular problem, don't hesitate to call on us.

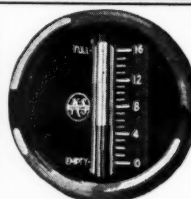
There's always
something new just
at hand for the
regular reader of
MOTOR AGE



A General Acceptance

The broad acceptance of B. C. A. Bearings by automobile makers points to one fact: They do their work well.

Bearings Company of America
Lancaster, Pa. Detroit Office
1012 Ford Bldg.



The K-S GASOLINE
Telegage 

A gasoline gauge on the Dash. Note our half page advertisement in this week's issue Saturday Evening Post. Write for description and proposition to the trade.

KING-SEELEY CORPORATION
298 Second Street, Ann Arbor, Michigan
Chicago Branch, 2450 Michigan Blvd.



Mallory
Ignition Coil

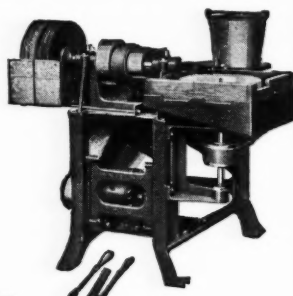
Has two primary windings instead of one. Gives a hotter spark, makes easier starting, gives more power, quicker pickup and more mileage. Try it on a sluggish motor. Write for full particulars.

The Mallory Electric Corporation
Toledo, Ohio

FAST AUTO GLASS EDGING
GRINDS
SMOOTHS
AND
POLISHES
EDGES OF
AUTO GLASS

Write today—Dept. K
MAKE THESE EXTRA
PROFITS

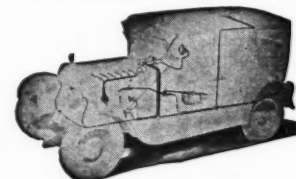
**HENRY G. LANGE MACHINE
WORKS**
DEPENDABLE SINCE 1882



160 N. MAY ST.
CHICAGO

Packard
Cable

The Packard Electric Co.
Warren, Ohio



The Gill
Combination

THE GILL MFG. CO.,
8300 So. Chicago Ave., Chicago, Ill.

FREE! Twenty minutes with this little booklet will show you the knack of selling piston rings, profitably. Sent free.



Protect the Oil-Grooves

By finishing bushings with FULL spiral fluted SMOOTH-KUT Reamers. The full spiral causes a continuous shearing action that cuts clean and can't hurt the oil-grooves.



Patented April 7, 1925.

SMOOTH-KUT are the only full-spiral expansion reamers made. They are guaranteed, and reground by us at cost. Studebaker, Velle, Franklin, Lycoming, Muskegon and others use SMOOTH-KUT in production. As a finishing tool for the Piston pin hole. Your jobber can supply them singly or in sets. ASK FOR THEM BY NAME, as imitations are inferior products.

Millersburg Reamer & Tool Co., Millersburg, Pa.

**SMOOTH-KUT EXPANSION
REAMERS**

(Trade Name Registered)

NEXT WEEK

—is the time to read next week's issue of MOTOR AGE, as you are reading this week's issue this week.

MOTOR AGE

5 So. Wabash Ave.

Chicago, Ill.



U. S. Car Washing Equipment

A high-pressure hydraulic system which does better work in half the time.

The United States Air Compressor Co.
5304 Harvard Ave. Cleveland, O



1-Gun 2-Gun 3-Gun 4-Gun models make "Speed-Spra" line complete



1 Gun 2 Man "Speed-Spra" will do the work of 4 men the old fashioned way. 2 Gun, 3 Gun and 4 Gun models also double wash rack output and profits by cutting labor in half, saving on water, washing solution, sponges and brushes.



"Speed-Spra"

is the original mechanical spray auto washer that washes cars with 300 pounds water pressure atomized so fine as to never harm the finest paint job.

Write for literature, prices and nearest jobber name today.

Hayes Pump & Planter Company

819 Sixth St.

Dept. 19

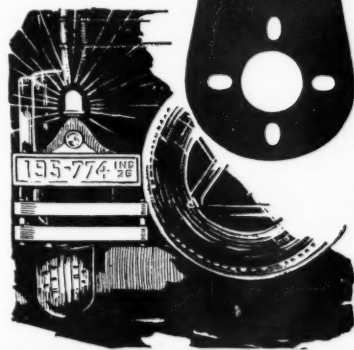
Galva, Ill.

A Sensation —the Stop-Light that Flashes

THE new Delta-Bojac Flasher Stop-Light. A startling signal that stabs the darkness 50 to 150 times a minute. Increases effectiveness at least 300% by sending out penetrating flashes instead of steady glow. Basically right—incorporating principle of most highly developed warning signals—like flasher lights at R. R. crossings. Its action creates talk everywhere—resulting in universal sales. Positive warning. Fully guaranteed. Unusual and highly

Delta Flasher Stop-Light

Furnished Complete with Flashing Mechanism, Pedal Switch, etc.



distinctive dome glass lens. Ask your distributor, or write us, for full information and details of novel mechanism.

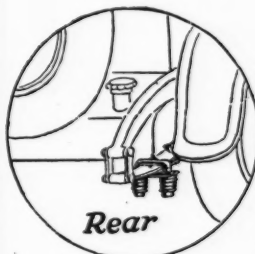
DELTA ELECTRIC COMPANY

903 Delta Block, Marion, Ind.

\$5.50 List COMPLETE OUTFIT: flashing mechanism, pedal switch and stop-light with all parts to install including wire. Model 151, Amber Lens; Model 152, Red; Model 153, Green.

Flashing Mechanism only, with which to convert ANY conventional stop-light into a FLASHING stop-light, Model 150 Canada \$5.00

Delta-Bojac



Rear

Imitators prove Its Merit

Orrville Spring Governor

The ORIGINAL Spring Control

This device thru its rocker plate acts automatically as a brake producing greater spring friction controlling the rebound but positively does not prevent freedom of spring action downward on account of an idle center and greatly improves the car

riding quality. A trial is all we ask.

This governor never needs servicing and will last the life-time of a car.

**Distributors
Sales Agents
Live Dealers**

We have profitable offers to distributors and dealers.

Simple to install. No service required. Can't damage springs. Very low in price. Efficient on all cars.

all are sold on a money back guarantee.

For prices and details write to

The Orrville Spring Governor Co.

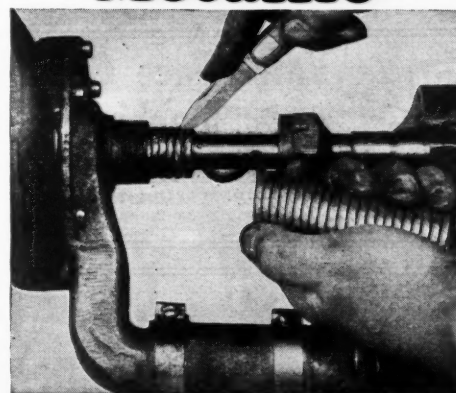
Brant Building

Canton, O.

"John Crane"

Auto Pump Packing

Metallic



The Pump Packing the Motor Builders Use Now available in replacement form. One size for all automotive pumps. Prevents scoring of rod. Gives long service. Keeps pumps tight.

Order from your jobber or direct.

Crane Packing Company

1805 Cuyler Avenue
Chicago

Gentlemen:

Send _____ spools
Garage size (40 ft.
¾ in.) C. O. D.
\$2.50 net.

Name _____
Address _____



SPEE-DEE CLEANS UP for Dealers

Results in quick stock turn-over, with small investment and liberal profits. Without water it removes grease, stains, etc., from hands, cloths, upholstery, paint or enamel. Indispensable in shops, service stations and car kits. List 35c.
Write for discount details.

States Chemical Company
703 W. Fulton St. Chicago, Ill.



UNITED STATES Portable Electric DRILLS

Built by the oldest makers of Portable Electric Drills in the World.

Ask for Catalog 105

THE UNITED STATES ELECTRICAL TOOL CO.
Cincinnati, Ohio, U. S. A.

R.I.V. Means Quality
in Every Language



250 West 57th St.

New York City

GATES VULCO

Fan Belts and Radiator Hose

Made By

The World's Largest Makers of Fan Belts



The SO-LO JACK

\$6.00 Retail

West of Mississippi \$6.50
4 1/2" LOW-HIGH 15 1/2"
The REAL Balloon Tire Jack
All Steel Construction
POWERFUL—STURDY—EASY TO OPERATE
A Sure Seller with your Trade
SO-LO JACK CO., Inc.
108 Massachusetts Ave., Boston, Mass.

The profitable line
that moves fast

FULTON

Accelerator for Fords—Pedal Pads for Fords and all cars—
Accelerator Pedal for all cars—Aermore Exhaust Horn—Hudson's
Crankcase Repair Arm for Fords—Copperhead Socket Wrench,
etc.

The Fulton Company, 732—75th Ave., Milwaukee



THE "BAT" Super-Charger

A practical system of super-charging for passenger cars, trucks, tractors, marine engines, aviation engines, stationary engines, etc. Simple, easy installation. Practical. Prices range as low as \$7.50.

P. H. Webber Company

Racine Industrial Plant, Building No. 12, Racine, Wisconsin
Manufactured and sold under license of F. J. F. Batemburg, Racine, Wis.



Pat Oct. 12, 1926.
Write for details.

Kawneer SOLID COPPER STORE FRONTS

Write for Special Book—Garage Front

THE KAWNEER CO., 3724 Front St., Niles, Mich.

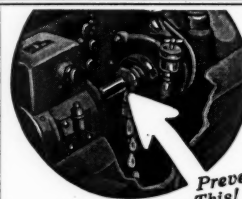


Marble Onyx Locking Cap For All Cars

Junior Models\$3.50
Senior Models 4.50

Ask Your Jobber

FAITH MFG. CO., INC.
2533-39 N. Ashland Ave. Chicago, Ill.



Stops Pump Shaft Leaks and Saves the Winter Solution

Conneaut Plastic Metallic Packing molds in the fingers to fit stuffing-boxes of any size or shape. It is a repair for the worn shaft and loose bushing. At your jobbers; if not write us.
1 lb. can\$1.75 per pound
5 lb. can\$1.60 per pound

Prevent This!

THE CONNEAUT PACKING CO.
Conneaut, Ohio



Valve Face Grinding Machine

Get a demonstration of Sioux before you buy any valve grinding machine. GUARANTEED FOR A LIFETIME.

Your Jobber Sells It

ALBERTSON & CO.
Sioux City, Ia.

LYCOMING Motors

Fine Fours, Sixes and Eights-in-Line

LYCOMING MANUFACTURING COMPANY, Williamsport, Pa.

Years Ahead in Automobile Motor Efficiency



Let us
send our
profit-
boosting
plan.
It's Free.

Good bye, buggy wheels



Budd Wheel Company

Detroit—Philadelphia

Thermoid Hydraulic Compressed Brake Lining

FROM THICK
TO THIN
DOWN TO THE
LAST PLY
IT HOLDS

TASCO
Gas Gauge for
FORD
CHEVROLET
OVERLAND
and STAR



Sells Quick at \$1.25 Retail.
Types "K" and "J" for 1926
Chevrolet and all
Stars Sell at \$1.50

THE AKRON-SELLE CO.
Akron, Ohio



"They Stand the Gaff"

The Burgan Cotter Pin Extractor

Works Like Magic

It goes in anywhere, grips the cotter pin—snaps it out in a jiffy—holds it until released. You don't have to pull or twist. Just squeeze the handles. It's a great tool!

Write for prices and details

THE BURGAN CORPORATION

9 So. Clinton St.

Chicago, Ill.



Here Is Something to Sell!

A piston ring, on the principle of a packing ring, that gives remarkable results in service, is used in thousands by automobile factory branches for replacement—and pays a profit worth while. WRITE FOR DETAILS.

THE CORK-SEALED PISTON RING CORP.

2332 Michigan Avenue, Chicago

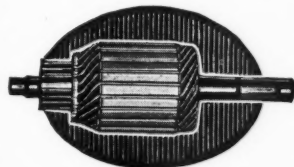
Factory: Denver, Colo.

Canadian Distributors: Purser, Bull & Co., Ltd.
Toronto, Canada

WIRE OR WRITE US FOR NEW OR USED TIRES — PARTS — ACCESSORIES

IF IT'S FOR AN AUTOMOBILE WE HAVE IT!
SEE OUR NEXT DISPLAY IN MOTOR AGE, DECEMBER 2

STATE AUTO PARTS CORPORATION
2011-13-15 S. State St., Chicago, Ill.



FREDERICKS Rewinding Service

New Rewind Profits—See announcement every 4th week. Write now for price list. The H. M. Fredericks Co., Lock Haven, Pa.

WEL-EVER

"OIL CONTROL" PISTON RINGS

The Motor Necessity That Has Made Good
Backed by Seven Years' Satisfactory Service

THE WEL-EVER PISTON RING CO., TOLEDO, OHIO
Sold most everywhere. If your dealer cannot supply you write us.

The Original
Bosch

Franchise details for selling ORIGINAL BOSCH Automotive Equipment will be sent to any Distributor, Dealer or Service Station on request.

ROBERT BOSCH MAGNETO CO., Inc.
109 West 64th Street New York, N. Y.



ORIGINAL BOSCH units bear the full name, Robert Bosch, and the trade mark shown at left. These are the identifications of Bosch quality—famous since 1887.

ONLY \$7.50 FOR THE NEW HEAVY DUTY KESS VALVE GRINDER

A rugged machine for all duties. Fits 1/4 in. drill chuck. Grinds all valves of a six in 30 minutes. Replacement parts available.

Kess Manufacturing Company
810 Harrison Building
Philadelphia



RACO Cast Aluminum Step Plates

THEY sell fast as they improve any car. Made of number one virgin metal. No scrap nor remelt metal used. Beautifully polished. Material and workmanship fully guaranteed. High quality black rubber mat and nicked screws or stove bolts furnished with each plate. Many sizes and styles. Write your jobber today for price lists and discounts.

Reynolds Aluminum Company

Dept. B-10

New Washington, O.

Levelizers A WEED Product

WEED Levelizers interest dealers because they are easily attached and require no service.

Made by the makers of WEED CHAINS & WEED BUMPERS



GENERAL MOTORS BUILDING

Broadway to 8th Ave. - NEW YORK - 57th to 58th Street
Renting & Managing Agent
CUSHMAN & WAKEFIELD, INC. 50 East 42d Street
New York City

Free
write for
your copy

The Book
"AIR PROFITS"
Shows how to get more work out of an air compressor. How to use compressed air for many pay jobs.

BRUNNER MFG. CO.
UTICA NEW YORK

BRUNNER
AIR COMPRESSORS

EATON BUMPERS



New models—better and far more beautiful than ever.

THE EATON BUMPER & SPRING SERVICE COMPANY
Cleveland, Ohio

HALL HONE \$35.
Gets Both the Oval and the Taper at your Jobber's

CLASSIFIED ADVERTISING

PATENTS & PAT. ATTORNEYS

C. L. PARKER

Ex-Examiner U. S. Patent Office
Attorney-at-Law and Solicitor of Patents

McGill Building, Washington, D. C.
Patent, Trade Mark and Copyright Law

HELP WANTED

WANTED — RETAIL SALES MANAGER BY LARGE AUTOMOBILE CONCERN RETAILING FIFTEEN HUNDRED CARS PER YEAR

This will be an opportunity for the right man. Answer, giving all qualifications, age, married or single. Address Box 6287, Motor Age, 5 S. Wabash Ave., Chicago, Ill.

CLASSIFIED ADVERTISING RATES

Ten cents a word is the rate for all undisplayed advertisements set solid, regular want ad style; minimum charge \$1 an insertion. All capitals, 12c a word; all capitals, leaded, 15c a word. Payable in advance.



Patented June, 1913; October, 1916

Advertising in the Saturday Evening Post directs interested buyers to your establishment—be ready for them.

Every accessory dealer is a live prospect for Rie Nie Pedal Pants—the fast selling necessity for all light cars in winter. Pedal Pants keep the cold wind from coming through floor openings. Pedal Pants is a sure and consistent seller.

DURKEE-ATWOOD®
MINNEAPOLIS, U.S.A.

Manufacturers since 1910 of
Rie Nie Automotive Products

Air Brakes	Metal and Nickel Polish
All in One Dressing	Patches (Repair Kits)
Battery Paint	Pedal Pants
Bearing Blue	Polish (Auto Body)
Blowout Patches for Balloon and High Pressure Tires	Radiator Cement
Clutch and Brake Compound	Red Tip Blowout Patch
Cowl Ventilator Gaskets	Radiator Hose
Enamel (Air Drying)	Rubber Cement (Cold Patching)
Enamel (Rub On)	Rim Paint
Fan Belts	Rubber Filler and Cement
Friction Tape	Rubber Splicing Compound
Gasket Cement	Spring Lubricant
Gasket Shellac Compound	Tire Mica
Graphite (Flake and Powdered)	Tire Paint
Leather Dressing	Tire Talc
Lucky Star Casing Patch	Valve Grinding Compound
	Varnish (Clear Auto)

Rie Nie Pedal Pants are now made for Fords, Oaklands, Overland "4" and "6," Chevrolets, Pontiacs, Dodges, Stars and Overland Whippet.



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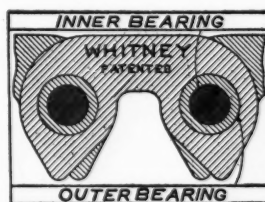
BUILT FOR THOSE WHO WANT THE BEST

"WHITNEY"

SILENT HIGH MILEAGE CHAINS

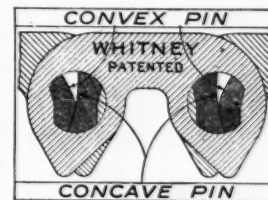
Advancing with the art of the motor designer toward ever greater durability and quieter operation, the "WHITNEY" line now offers TWO wonderful silent chains for the replacement parts trade.

No chain ever produced has shown the rugged endurance of the original "WHITNEY"



DOUBLE BEARING PIN AND BUSHING TYPE. The bearing **within** and **without** the bushing is practically double the joint bearing area in other chains.

For many of the newer motors, exceedingly quiet timing is essential, and without sacrificing durability the "WHITNEY" ROLLING JOINT TYPE meets the demand. The co-operating surfaces of the two joint pintles are in contact over a substantial area when the chain is carrying its load between sprockets, thus affording resistance to the wear common to other chains of this type.



Ask our distributor in any city, or mail coupon for specification list.

The Whitney Mfg. Co.

Hartford, Conn.

I want that book on chain specifications

Name

Address

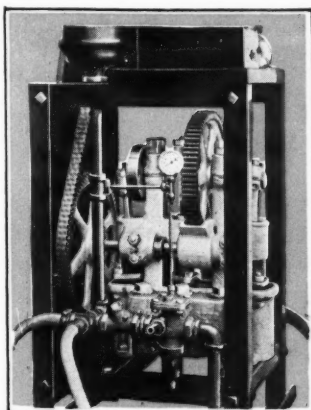
☐ Service Station ☐ Fleet Owner ☐ Parts Jobber

MANLEY

Announces Complete Line of **Car Washers**

SPECIAL FEATURES

Vertical Construction
Unusually compact
Perfected control valve
and safety valve
Worthington pump
No leather washers
Packing glands easily
accessible
Guides absorb side thrust
Pump valves easily
accessible
Drop forged crank shaft
Silent chain drive
Alemite lubrication



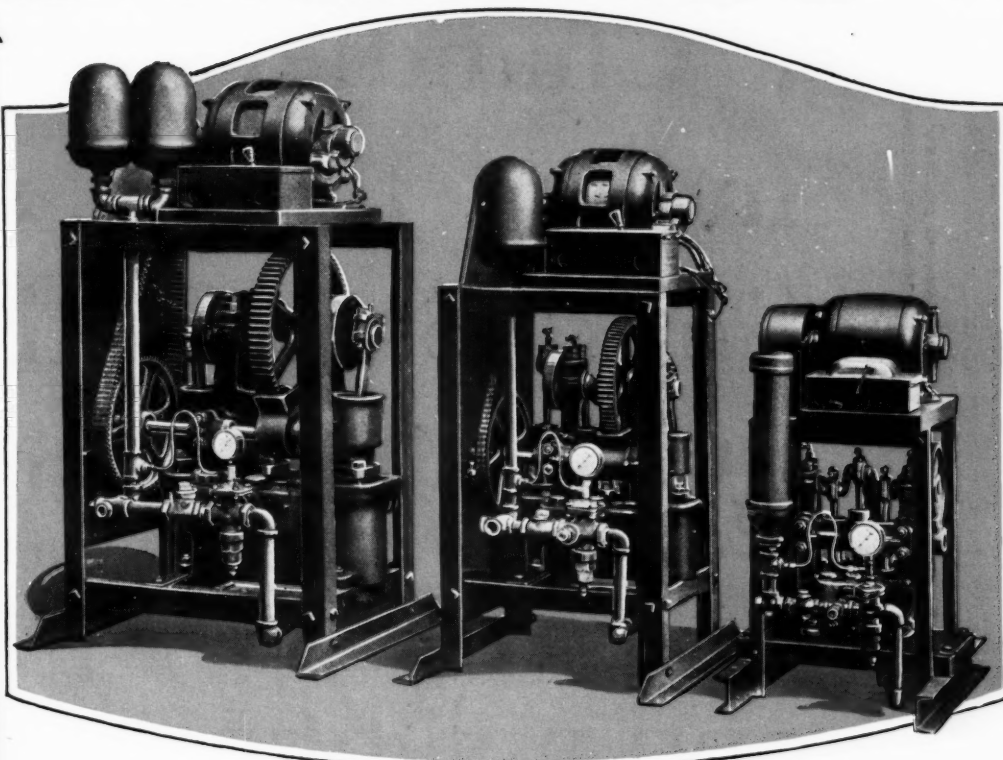
WORTHINGTON TRIPLEX PUMP

The pump unit on each of the Manley Car Washers is "a Worthington," manufactured exclusively for the Manley Car Washer by the Worthington Pump and Machinery Company.

These three cylinder pumps work 120° apart on the crank shaft, maintaining continuous even flow and pressure.

Each plunger is provided with a guide which absorbs side thrust, eliminating these strains from the cylinder and packing glands.

Pump is of the displacement type, no leather washers being used.



No. 606
6 Gun Washer

\$800

No. 602
2 Gun Washer

\$416

No. 601
1 Gun Washer

\$295

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